

2020-124 REV. 2

Adopted by the Management Board on 30 June 2020 Language edited version

# eu-LISA Consolidated Annual Activity Report 2019

## Contents

Lis	st of figure	es and tables	4
Αŀ	breviatio	ns and acronyms	5
As	sessment	by the Management Board	7
Fo	reword		. 11
Ex	ecutive su	ummary	. 13
In	troduction	1	.18
1	Achiev	ements of the year	.20
	1.1 S	trategic Goal 1	. 20
	1.1.1	Operational management of the systems	. 20
	1.1.2	Evolution of the systems	.29
	1.1.3	Development and implementation of new systems	
	1.1.4	Interoperability	
	1.1.5	Infrastructure and networks	-
	1.1.6	Security	-
	1.1.7	Data protection	
	1.1.8	Reporting and statistics	
	1.1.9	Training for Member States	
	1.1.10	Research and technology monitoring	
	1.2 S	trategic goal 2	
	1.2.1	Enterprise Project Management	
	1.2.2	ITSM framework maintenance and development	
	1.2.3	Vendor and contract management	
	1.2.4	Enterprise architecture	_
	1.3 S	trategic goal 3	. 50
	1.3.1	Partnerships with the Member States and EU institutions	. 50
	1.3.2	Partnerships with other EU Agencies	
	1.3.3	Partnership with industry	. 54
	1.4 S	trategic goal 4	. 54
	1.4.1	Organisational transformation programme: eu-LISA 2.0	. 54
	1.4.2	Strategic and operational planning and reporting	
	1.4.3	Governance framework	
	1.4.4	Finance and procurement	
	1.4.5	Human resources	
	1.4.6	Corporate services and facilities	
	1.4.7	Communication	
	1.4.8	Internal audit	.60
2	Manag	ement	.63
	2.1 M	anagement Board	.6:
		ajor developments	
	2.2.1	eu-LISA 2.0	
	2.2.2	New legislation	_
	2.2.3	Impact of the UK withdrawal from the European Union	
	_	udgetary and financial management	
	2.3.1	Financial management	_
	2.3.2 2.3.3	Procurement procedures	
	~.3.3		. / 4

## EU-LISA CONSOLIDATED ANNUAL ACTIVITY REPORT 2019

	2.4	Human Resources Management	71
	2.4.1		
	2.4.2	5	
	2.4.3	Establishment plan and headcount	73
	2.5	Assessment of audit and ex post evaluation results	
	2.5.1	· ·	
	2.5.2		
	2.5.3		-
	2.6	Follow-up of recommendations and action plans for audits	
	2.7	Follow-up of observations from the discharge authority	
	2.8	Assessment by management	
	2.9	External evaluations	
3	Asses	ssment of the effectiveness of the internal control framework (ICF)	88
	3.1	Effectiveness of the ICF	
	3.1.1	Methodology used to assess the effectiveness of the ICF	88
	3.1.2		
	3.1.3		
	3.1.4		
	3.2	Conclusions of the assessment of the effectiveness of the ICF	
	3.3	Statement of the Manager in charge of Risk Management and Internal Control	95
4	Mana	agement assurance	96
	4.1	Review of the elements supporting assurance	96
	4.2	Reservations	97
5	Decla	aration of assurance	98
Αı	nnex I.	Corporate key performance indicators	99
Αı	nnex II.	Statistics on financial management	102
Αı	nnex III.	Organisation chart	105
Αı	nnex IV.	Establishment Plan	106
Αı	nnex V.	Human and financial resources by activity	109
Αı	nnex VI.	List of training sessions delivered to Member States	113
Αı	nnex VII	I. Financial accounts	114
Αı	nnex VII	II. Annual activities and indicators	116
Αı	nnex IX.	. Report on public access to documents	127

# List of figures and tables

## List of figures

Figure 1: Average number of SIS II searches and hits per day (2014-2019)	21
Figure 2: Key 2019 statistics for SIS II	22
Figure 3: Number of SIS II searches per year (in billion, 2014-2019)	22
Figure 4: Number of visa applications per year (2012-2019)	23
Figure 5: Number of VIS operations per year (2012-2019)	23
Figure 6: Key 2019 statistics for VIS/BMS	23
Figure 7: Eurodac data transmitted per year (2012-2019)	24
Figure 8: Key 2019 statistics for Eurodac	25
Figure 9: Breakdown by category of datasets sent to the Eurodac central system in 2019	25
Figure 10: The Single Integrated Monitoring Solution deployed in Strasbourg	27
Figure 11: eu-LISA 2.0 - Major milestones timeline	64
Figure 12: Consumption of C1 commitment appropriations	68
Figure 13: Trends in consumption of funds committed and budgeted	68
Figure 14: Title 3 executed commitment appropriations (EUR million)	68
Figure 15: Consumption of C1 payment appropriations	70
Figure 16: Trends in consumption of funds paid and budgeted	70
Figure 17: Title 3 executed payment appropriations (EUR million)	70
Figure 18: Payments within a time limit of 30 days	71
Figure 19: Payments within a time limit of 60 days	71
Figure 20: Distribution of staff between the sites (number and share of total staff)	74
Figure 21: Number of days of flexitime, stand-by duty and overtime compensation in 2019, per site	75
List of tables	
Table 1: Number of incidents and service requests handled in 2019	26
Table 2: Breakdown of incidents by priority and system	26
Table 3: Implementation status of security exercises - recommendations	43
Table 4: IAC 2019 performance indicators	61
Table 5: Commitment appropriations (amounts in EUR million)	66
Table 6: Commitment appropriations for new tasks (in EUR million)	66
Table 7: Breakdown of 2019 amending budget (in EUR million)	67
Table 8: Breakdown of 2019 carry-over (in EUR million)	67
Table 9: 2019 de-commitments of budgetary commitments by year of origin (in EUR million)	69
Table 10: 2019 de-commitments of global (L1) commitments (amounts in EUR million)	69
Table 11: Volume of contracts (2014-2019)	71
Table 12: Distribution of staff by sites and types of contract	74
Table 13: Compensatory leave breakdown per type of leave and grade of staff	76
Table 14: Status of implementation of audit recommendations	79
Table 15: Gender balance of Agency staff	83
Table 16: Implementation status of the recommendations from the Agency's evaluation	87
Table 17: Major corporate ricks	0.5

# Abbreviations and acronyms

AFIS	Automated Fingerprint Identification System				
AG	Advisory Group				
ARES	Advanced Records System				
BCU	Backup Central Unit (backup centre in St Johann im Pongau)				
BMS	Biometric Matching System				
CA	Contract Agent				
CAAR	Consolidated Annual Activity Report				
CEPOL	European Union Agency for Law Enforcement Training				
CIR	Common Identity Repository				
CRRS	Central Repository for Reporting and Statistics				
CSI	Common Shared Infrastructure				
CS-SIS	Central System SIS II				
DAPIX	Working Party on Information Exchange and Data Protection				
DG DIGIT	Directorate-General for Informatics				
DG JUST	Directorate-General for Justice and Consumers				
DG HOME	Directorate-General for Migration and Home Affairs				
DPO	Data Protection Officer				
DubliNet	Communication Network for Eurodac				
EASO	European Asylum Support Office				
ECA	European Court of Auditors				
ECRIS-TCN	European Criminal Records Information System — Third Country Nationals				
ED	Executive Director of eu-LISA				
EDPS	European Data Protection Supervisor				
EES	Entry/Exit System				
EMPACT	European Multidisciplinary Platform against Criminal Threats				
ENISA	European Union Agency for Cybersecurity				
EPMO	Enterprise Project Management Office				
ESP	European Search Portal				
ETIAS	European Travel Information and Authorisation System				
EU	European Union				
eu-LISA	European Union Agency for the Operational Management of Large-Scale IT				
eu-LISA	Systems in the Area of Freedom, Security and Justice				
Eurodac	European Asylum Dactyloscopy Database				
Eurojust	European Union Agency for Criminal Justice Cooperation				
Europol	European Union Agency for Law Enforcement Cooperation				
FG	Function Group				
Frontex	European Border and Coast Guard Agency				
FTE	Full-Time Equivalent				
HR	Human Resources				
IA	Impact Assessment				
IAC	Internal Audit Capability				
IAS	Internal Audit Service of the European Commission				
ICAO	International Civil Aviation Organization				

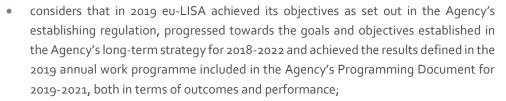
ICD	Interface Control Document			
ICF	Internal Control Framework			
ICT	Information and Communications Technology			
10	Interoperability			
IT	Information Technology			
ITIL	IT Infrastructure Library			
ITSM	IT Service Management			
JHA	Justice and Home Affairs			
KPI	Key Performance Indicator			
MB	Management Board			
MFF	Multiannual financial framework			
MID	Multiple-Identity Detector			
MRMIC	Manager in charge of Risk Management and Internal Control			
MS	Member States			
MWO	Maintenance in Working Order			
NUI	National Uniform Interface			
OJ	Official Journal of the European Union			
PD (also SPD)	Programming Document (also Single Programming Document)			
PMB	Programme Management Board			
sBMS	Shared Biometric Matching Service			
SIRENE	Supplementary Information Request at the National Entries			
SIS	Schengen Information System			
SIS II	Second generation Schengen Information System			
SiMS	Single Integrated Monitoring Solution			
SLA	Service-Level Agreement			
SNE	Seconded National Expert			
SPoC	Single Point of Contact			
TA	Temporary Agent			
TAP	Turnkey Access Point			
TEF	Transversal Engineering Framework			
TESTA-ng	Trans European Services for Telematics between Administrations — new			
TESTA-lig	generation			
TTS	Technical Tender Specifications			
VIS	Visa Information System			
WAN	Wide-Area Network			
WP	Work Package			

# Assessment by the Management Board

The Management Board of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice has analysed and assessed the Consolidated Annual Activity Report of the Agency on the achievements and results for 2019. The Board acknowledges the Agency's performance and makes the following observations.

## General observations

## The Management Board:





Zsolt Szolnoki, Chairman of the Management Board

- acknowledges the strong contribution of eu-LISA to the functioning of the Schengen area, to the freedom of movement and to the implementation of EU policies in the area of freedom, security and justice;
- highlights the challenges faced by the Agency in 2019, with the implementation of its new establishing
  regulation, its organisational transformation and, in parallel, the development of EES, ETIAS, ECRIS-TCN and
  of the interoperability components; the Board notes with satisfaction that the Agency nonetheless maintained
  the required level of service vis-à-vis the Member States in the operational management of SIS, VIS/BMS and
  Eurodac and at the same time made substantial progress with the implementation of the new initiatives
  entrusted to it;
- acknowledges that in 2019 the Agency grew significantly in terms of staffing numbers, budget and scope of
  activities, welcomes the successful roll-out of the eu-LISA 2.0 transformation programme and notes that the
  Agency is managing the change with agility, a high level of control and commitment from the managers and
  staff;
- acknowledges that, in addition to successfully delivering its activities in 2019, the Agency demonstrated agility
  and flexibility throughout the year, facing considerable challenges with the number of major new initiatives
  being implemented in parallel (EES, ETIAS, Interoperability, SIS Recast, ECRIS-TCN) and the ongoing
  organisational transformation, with regard to the optimal use of available human and financial resources;
- acknowledges the low turnover rate of the Agency's staff and emphasises the need for eu-LISA to continue its commendable efforts to ensure staff retention and professional development in the Agency;
- emphasises the need for the Agency to enlarge the capacity of its facilities in Strasbourg to accommodate the additional human and technical resources needed in the coming years;
- in the wake of the negotiations of the new Multiannual Financial Framework (MFF) for 2021-2027, expresses its concerns over the risk that the Agency might not be able to guarantee the uninterrupted availability of the systems under its management and the timely implementation of the new tasks entrusted to it, if the allocated financial resources are not sufficient;
- acknowledges the progress of the Agency in the implementation of its new Internal Control Framework and in the growth of its capabilities for risk management, quality management, contract and vendor management and programme and portfolio management;

- acknowledges the efforts of the Agency in the systematic and regular monitoring and follow-up of audit recommendations, and the progress made with their implementation;
- notes with satisfaction the discharge granted by the European Parliament for the budget year 2018.

## Observations on the Agency's operational achievements

#### The Management Board:

- acknowledges that the Agency successfully ensured the uninterrupted availability of SIS, VIS/BMS and Eurodac;
- considers that the actions performed by the Agency to manage the SIS, VIS/BMS and Eurodac are adequate for its mandate and successfully contributed to the delivery of the tasks set out in the systems' legal instruments;
- congratulates the Agency on its ability continuously to improve its operations, as evidenced by the positive results of the stakeholder satisfaction survey;
- notes with satisfaction the timely progress made by eu-LISA in the implementation of the SIS Recast Regulation;
- emphasises the importance of the Automated Fingerprint Identification System (AFIS) for SIS, and notes the progress that the Agency has made with the implementation of the second phase of the project;
- welcomes the successful deployment of the latest systems releases, in particular for SIS, providing Europol, Eurojust and Frontex with access to SIS alerts, and the capacity increase of the VIS database to 100 million records;
- notes with regret the substantial delay in the adoption of the Eurodac Recast Regulation which prevented the
  Agency from implementing the substantial evolutions of the system needed to increase its efficiency, and led
  to the complete loss of allocation for implementation of the Recast budget;
- recognises that eu-LISA fully met the expectations of its stakeholders in providing strong and consistent leadership in the implementation of EES and ETIAS;
- emphasises the great importance of EES and ETIAS for strengthening border management and internal
  security in the EU, expresses its great satisfaction at the substantial progress in 2019 with their implementation
  and encourages the Agency to continue its efforts towards the full implementation of the systems, in close
  collaboration with the EES and ETIAS governing bodies, the Member States and the EU institutions and
  agencies;
- emphasises the great importance of the timely implementation of the Interoperability regulations and of the ECRIS-TCN regulation and acknowledges the substantial progress made by the Agency in developing the required systems and components, in particular with the establishment of the necessary governance bodies;
- welcomes the further development of the internal capabilities of the Agency with regard to budget planning and the proactive management of budget execution to ensure the sound management of the Agency's financial resources, and acknowledges that the overall execution levels of commitments and payments were 99.7 % and 99.3 %, respectively, against a target of 95 %;
- notes with satisfaction the structured approach taken by the Agency for the implementation of its internal transformation programme and the importance of its successful implementation for the Agency's long-term success;
- expresses satisfaction with the efficient functioning of the Agency's internal control system, as acknowledged
  in regular external and internal audits.

## Assessment of the management of the Agency

The Management Board, acknowledging the results delivered by the Agency in 2019 and considering the positive outcomes of the internal and external audits performed during the year, expresses its satisfaction with the quality of the management of the Agency in 2019.

# Variations in the use of human and financial resources compared with the annual work plan

The Management Board:

- considers this report to provide sufficient assurance that resources (staff and budget) are used by the Agency
  in line with their intended purpose as set out in the 2019 Annual Work Programme included in the Programming
  Document 2019-2021;
- considers that the variations in the use of resources are not significant and are justified, given the results achieved by the Agency and the outcomes of the audits that have been performed throughout the year;
- emphasises the importance of achieving the right balance between the human and financial resources allocated to the Agency in the next programming period 2021-2027 and the tasks assigned to it.

## Performance indicators

The Management Board acknowledges the levels of the key performance indicators of the Agency for 2019.

## Risk and control environment

The Management Board:

- acknowledges that the Agency's internal controls have been effective, considering the results achieved by the Agency and the results of the internal and external audits;
- welcomes the implementation of the new Internal Control Framework, takes note of the first report on its implementation and invites the Agency to continue with the implementation and monitoring of the ICF;
- welcomes the appointment of the Manager in charge of risk management and internal control;
- acknowledges that the main risks to the organisation, which might have jeopardised the delivery of the tasks set out in the Programming Document 2019-2021, have been identified and assessed and adequate response plans have been put in place;
- considers that the Agency has taken appropriate measures to manage these risks and to prevent them turning into issues that might negatively affect its activities.

## Recommendations

The Management Board, considering the information provided in this report, encourages the Agency in 2020 to:

- deliver on all obligations stemming from its mandate, with sustained efficiency and effectiveness;
- continue the implementation of the EES, ETIAS and interoperability components without delay, establishing synergies in the use of allocated human and financial resources where possible;
- proceed with the project of extending the technical site of the Agency in Strasbourg, both in terms of office space and a data centre;
- proceed with the implementation of the SIS Recast Regulations;

- proceed with the implementation of ECRIS-TCN;
- continue its close collaboration with the Member States, the European Commission and the relevant EU
  Agencies to ensure the timely implementation of the new systems and the interoperability components;
- finalise the recruitment for all posts provided in the Agency's establishment plan without delay;
- continue to evolve and strengthen the corporate governance framework, with particular attention on portfolio and programme management, contract and vendor management and activity-based budgeting;
- finalise without delay the development of the Agency's sourcing strategy;
- implement the updated set of corporate KPI to reflect the evolution of eu-LISA's organisation.

## Assessment of assurances and reservations issued by the Authorising Officer

The Management Board considers that adequate and appropriate measures are in place to address the identified management and control weaknesses.

## Conclusion

The Management Board is highly satisfied with the overall performance of eu-LISA in 2019 and with the achievements of the Agency throughout the year. They are in line with the goals and objectives set out in its 2019 Annual Work Programme. The Management Board is also satisfied with the level and adequacy of utilisation of the available human and financial resources. The Board emphasises that the considerable pressure of work remains a concern, especially in the horizontal and cross-organisational functions.

The Management Board invites the Agency to continue its commendable efforts on implementing the new initiatives entrusted to it, namely EES, ETIAS, Interoperability and ECRIS-TCN, as well as the recasts of the legal instruments governing the existing systems. At the same time, the Board acknowledges the interdependencies between the work of the Agency at central level and that of the Member States at national level, and invites eu-LISA to continue its close and efficient cooperation with them and the European Commission to ensure the final success of the new systems implementation.

The Management Board acknowledges the strategic importance of the second extension of the Agency's technical site in Strasbourg in order to ensure adequate working conditions for the Agency staff and on-site contractors. It is also necessary to ensure that there is sufficient data centre capacity to deploy and manage the new and existing systems in an efficient and sustainable manner, while continuing to guarantee the uninterrupted availability and timely evolution of the existing systems. The Board invites the Agency to continue with this project without delay.

The Management Board expresses its appreciation to the Executive Director and to the Agency's management and staff for their commitment and achievements throughout the year, and wishes to thank them for their professional and generous collaboration.

## Zsolt Szolnoki, Chairman of the Management Board

## **Foreword**



Krum Garkov, Executive Director of eu-LISA

The free movement of people is one of the tangible symbols of European integration. However, at the time of writing this report in April 2020, it is being put to the test. The EU, just like the rest of the world, has almost come to a standstill in the wake of the COVID-19 pandemic. Temporary restrictions and protective measures have been introduced and these have restricted the free movement of people in the Schengen area and around the EU's external borders. This crisis has had an impact on all citizens and organisations in the EU, including eu-LISA. Nonetheless, the Agency, being fully cognisant of the importance of its services to the Schengen area, has demonstrated its high levels of agility and resilience in being able to sustain its operations. eu-LISA has become an integral part of the Schengen architecture and this is mainly due to eu-LISA's strong and committed team. In a time of crisis, the Agency's services are essential for the EU to function as normal and continue providing the necessary levels of protection and security to its citizens.

But real achievements are measured in the long-term. Learning from progress made in the past to achieve goals set for the future helps organisations to keep their focus and direction, particularly in times of uncertainty. It is in this mind-set that the Agency presents its 2019 achievements, and its progress towards the delivery of its annual activities and long-term goals.

2019 was a key and successful year for eu-LISA. To start with, it was the first full year of implementing the Agency's new mandate, of bringing new responsibilities and additional resources. The annual activities of eu-LISA have been built around three priorities:

- 1) To stay focused on its core operations, taking into account the importance of the systems entrusted to the Agency for internal security, border and migration management in the EU.
- **2)** To progress with the implementation of the new tasks entrusted to the Agency (namely the development of EES, ETIAS, interoperability and ECRIS-TCN).
- 3) To continue with the organisational transformation that is the catalyst for the Agency's success in the long-term.

The evolution of political priorities in Justice and Home Affairs throughout the year, combined with the large number of activities being carried out in parallel and high expectations of the Agency's stakeholders, created a very complex and challenging operational environment for eu-LISA. Nevertheless, I am confident that this report provides solid evidence that eu-LISA was successful in addressing these challenges. Some of the successes included the following, just to mention a few:

- The Agency ensured the uninterrupted availability to the Member States and the relevant EU Agencies of the systems entrusted to it.
- Substantial progress has been made with the new tasks entrusted to the Agency. The development of EES
  commenced in May and there has been considerable progress on the preparatory work for the implementation
  of ETIAS, interoperability and ECRIS-TCN.
- The Agency achieved the key milestones planned for 2019 in its transformation programme.
- eu-LISA proved itself as the trusted partner and advisor to the EU institutions, being involved in many meetings at different levels.
- Cooperation with the other JHA Agencies has been further developed in the context of implementing EES and ETIAS.

These achievements provide to the Agency's stakeholders assurance about its ability to deliver its objectives, and serve as a solid foundation for its future success. However, all this has not been achieved in isolation. I would therefore like to take this opportunity to thank the Member States, and in particular the governments of the countries hosting the Agency's sites, the European Commission, the European Parliament and the Council of the European Union, as well as our partner EU Agencies for their continuous support and constructive cooperation throughout the year. I would also like to thank all the members of the eu-LISA team for their dedication and hard work in 2019 in delivering the Agency's objectives and meeting its stakeholders' expectations.

Next year (2020) and beyond will be no less demanding than 2019. The Agency will continue to operate in a very challenging and dynamic environment. Nevertheless, rest assured that, irrespective of the challenges and the circumstances, eu-LISA will not lose sight of its purpose: to contribute through its services to the efforts of the Member States to make Europe safer and stronger. To be successful in this endeavour, the Agency will keep its stakeholders and their needs at the heart of everything it does, ensuring that it delivers services to stakeholders efficiently, with a passion for excellence, agility, flexibility and commitment.

## Krum Garkov, Executive Director

# **Executive summary**

The Consolidated Annual Activity Report (CAAR) 2019 gives a structured overview of the activities performed and objectives achieved in 2019 by eu-LISA. In accordance with eu-LISA's establishing regulation, the CAAR is assessed by the Management Board after consultation with the Advisory Groups, in particular by comparing the results achieved with the objectives set out in the 2019 Annual Work Programme included in the Programming Document 2019-2021. The CAAR must be adopted by the Management Board, sent by 1 July of each year to the European Parliament, to the Council, to the Commission and to the Court of Auditors, and published.

eu-LISA's 2019 achievements again demonstrated that the Agency is a strong and reliable partner in the area of Justice and Home Affairs, with a solid structure and operations and highly qualified staff. Throughout the year, eu-LISA proved itself to be an indispensable element of the Schengen architecture and the enabler of one of the fundamental rights of EU citizens – freedom of movement. The Agency performed well throughout the year and, despite the challenges it faced, managed to deliver its objectives.

In a rapidly changing environment, the volatile situation outside of the EU borders, international terrorism and cross-border crime continue posing significant challenges to the internal security, law enforcement and border management in the EU. eu-LISA is at the service of European citizens and with its work in 2019 proved to be fundamental in the EU response to these challenges.

## Evolution of the legal framework

The year 2019 brought significant changes to the legal environment in which eu-LISA operates.

On 11 December 2018, eu-LISA's new establishing regulation¹ entered into force. With the strengthening of its mandate, the Agency now has increased responsibilities pertaining to the design, development, interoperability and operational management of existing and new systems in the area of security, border management, migration and asylum. The new mandate broadens the scope of the Agency's work, providing it with a greater role in the area of research, assurance of data quality in systems, as well as pilot projects, proofs of concept and testing activities directly related to its mandate.

Three new regulations aiming at further strengthening the SIS entered into force on 28 December 2018. The revised legal framework is also geared towards ensuring the full interoperability of SIS with other EU systems for migration, border management and security.

On 11 June 2019, the ECRIS-TCN Regulation entered into force. eu-LISA is responsible for the development and the operational management of ECRIS-TCN, the first large-scale IT system designed and developed by eu-LISA primarily for justice purposes.

On the same day, two Regulations establishing a framework for interoperability between EU information systems in the areas of (1) police and judicial cooperation, asylum and migration; and (2) borders and visa entered into force. The development of interoperability technical components, namely the Common Identity Repository (CIR), the European Search Portal (ESP), the shared Biometric Matching Service (sBMS), the Multiple Identity Detector (MID) and the Central Repository for Reporting and Statistics (CRRS), is an iterative process, which first requires the implementation of EES and ETIAS.

## Operational management of the existing systems

eu-LISA maintained the uninterrupted operation of SIS, VIS/BMS and Eurodac throughout the year, within the legal requirements and to the agreed service levels. The availability of SIS was 99.95 %, that of VIS was 99.65 % and that of

<sup>1</sup> Regulation (EU) 2018/1726, OJ L 295, 21.11.2018, pp. 99-137

Eurodac was 99.55 %. The annual eu-LISA stakeholder satisfaction survey for 2019 showed that over 93.4 % of Member States were satisfied or very satisfied with eu-LISA's services.

In line with the new legal instruments, SIS II Release 9.3.0 was successfully deployed in January 2020. This release included new access control features that enable Europol, Eurojust and Frontex to query all relevant types of alerts in the system along with fingerprint matching. SIS AFIS phase 2 was launched. Its objective is to implement additional biometric requirements stemming from the SIS recast. To answer the needs of the Member States and the continuous increase in the number of searches, the Agency started a project to increase the query capacity. A major evolution of the system with the implementation of the new ICAO transliteration rules was completed in October 2019. The Agency supported the integration of new users (Cyprus, Ireland and Frontex).

The evolutions of **VIS/BMS** in 2019 aimed to ensure it had sufficient capacity to meet the growing needs of the Member States stemming from the implementation of the EU Common Visa Policy. The capacity of **VIS** was successfully increased to 100 million applications, thereby ensuring sufficient capacity for the Member States. The **VIS/BMS** test environment was improved with the completion of several projects. The Agency also worked on the integration of new users (Europol, passive access for Bulgaria and Romania). The evolutions of VIS/BMS have been strongly influenced by the future interconnection between VIS and EES.

Functional evolutions of **Eurodac** were put on hold pending the adoption of the new Eurodac Regulation. One new release was deployed, including adaptive and correctives changes.

In 2019, the Agency implemented a new monitoring solution for managing the systems. It generated efficiency gains in the daily tasks of Agency staff and improved their working environment.

## Implementation of new systems

In 2019, eu-LISA continued its work on the implementation of the new systems entrusted to it (EES, ETIAS, interoperability and ECRIS-TCN). Taking into account the scale of these initiatives, they have been organised as internal programmes to ensure synergies and efficiency in the use of the available human and financial resources.

On 17 May 2019, eu-LISA kicked off the execution of the framework contract for the development of the **EES** system. At the end of 2019, the programme setup phase was close to completion. The requirements and specifications phase, in which the detailed technical requirements for the system and its architecture are developed, progressed at full speed. The development phase was initiated with the signature on 23 December 2019 of two specific contracts, covering the NUI delivery and installation at central and national level, and the procurement of the necessary licences for the automation of the release deployment. Phase 2 of the EES BMS (including sBMS) tender was launched on 15 August 2019 and ended on 20 December 2019. In line with the indicative planning, eu-LISA started working on the VIS-EES interoperability as well. A decision was taken that the biometric data for VIS will use the sBMS directly, without migration for the EES onto an intermediary system, resulting in an overall saving of approximately EUR 30 million.

The Agency established the necessary **ETIAS** governance bodies, the ETIAS Programme Management Board, and the combined EES-ETIAS Advisory Group. The preparation phase of the ETIAS programme has progressed as planned, with the recruitment of the team, a contribution to the preparation of delegated and implementing acts, and the preparation of the tender technical specifications. A new procurement approach was prepared, the Transversal Engineering Framework (TEF), aimed at setting up a contractual shell for the design, development, testing and implementation of new systems, starting with ETIAS.<sup>3</sup>

Following the entry into force of the **interoperability regulations**, the Agency put in place the necessary internal arrangements without delay and initiated the preparatory work for their implementation. It has been organised into three work streams: recruitment of new staff, preparation of the procurement procedure and support to the European

<sup>2</sup> The evaluation of the offers started in January 2020, and a framework contract was signed in April 2020.

<sup>3</sup> The TEF was launched on 29 January 2020.

Commission and the Member States for the preparation of the required delegated and implementing acts. The Agency anticipated the development of interoperability components within other new developments. In particular, the sBMS and the CRRS will be developed as part of the EES programme, the ESP and the CIR will be developed as part of the ETIAS programme and the MID will be developed separately.

Similarly, following the entry into force of the **ECRIS-TCN** Regulation, the Agency continued with the recruitment of the new staff allocated to the development, started the preparation for the procurement procedure and initiated a close collaboration with DG JUST to assist with the preparation of implementing and delegated acts.

## Evolution of infrastructure and networks

During the reporting period, the SIS and VIS communication infrastructure using the TESTA-ng services framework contract performed in accordance with the legal and operational requirements. The SIS II second encryption layer ensured the security of the SIS II and SireneMail business data and reached an availability of 100 % during the reporting period.

The upgrade of the VIS communication infrastructure progressed and is planned to be completed in July 2020. Once upgraded, the VIS communication infrastructure will have a capacity almost seven times higher than before, and will be ready to support the entry into operation of EES and ETIAS. During the reporting period, a second encryption layer pilot was carried out on the VIS communication infrastructure. However, a full roll-out of the VIS second encryption layer to all Member States was put on hold until the EES second encryption layer is designed, as both need to use the same communication infrastructure.

The upgrade of the TESTA-ng SIS communication infrastructure started in 2018 and continued during the reporting period. Starting in November 2019, upgrades have been deployed at three sites per month. When the upgrade is completed, all Member States will increase their bandwidth from 10 Mbps to 50 Mbps, with an option to upgrade to 100 Mbps.

During the reporting period, the Agency ensured the operational management and daily operation of its infrastructure, both at the main technical site in Strasbourg and at the backup site in St Johann im Pongau, Austria.

## Cooperation with stakeholders

eu-LISA maintained its commitment to collaborating very closely, transparently and constructively with its Management Board (MB) and the Advisory Groups (SIS, VIS, Eurodac, EES-ETIAS, IO and ECRIS-TCN). Following the entry into force of the ETIAS regulations, the Agency initiated the ETIAS PMB and extended the EES AG remit to cover ETIAS (joint EES-ETIAS AG). Their first meetings were held on 1 February 2019 (ETIAS PMB) and on 13 March 2019 (EES-ETIAS AG). Three Working Groups (WG) worked under the umbrella of the EES-ETIAS AG: the WG for ICT Solutions for the MS with external land and sea borders, the Carriers WG (jointly organised with the European Commission) and the WG on Biometrics. Similarly, following the entry into force of the interoperability (IO) and ECRIS-TCN regulations, the preparatory work was completed on organising their first AG and PMB meetings, respectively: the first IO PMB took place on 30 October 2019, and the first IO AG meeting took place on 21 January 2020, the first ECRIS-TCN AG and PMB meetings took place on 24 and 30 January 2020, respectively.

eu-LISA continued its involvement in the Schengen evaluation mechanism by helping to monitor the application of the Schengen acquis. In 2019, the Agency supported ten Schengen evaluation missions and four common visa policy evaluations following requests from the European Commission.

The Annual Conference – 'The New Information Architecture as a Driver for Efficiency and Effectiveness in Internal Security' – was organised in October 2019 under the auspices of the Finnish Presidency of the Council of the EU and brought together close to 200 delegates representing the Member States, EU institutions and fellow Agencies, as well as practitioners from industry and academia. Two industry roundtables, with a total turnout of over 190 participants,

provided valuable for afor focused discussions about the practicalities and solutions for architectural design and development of the future large-scale IT systems entrusted to the Agency.

## Organisational transformation

In 2019, the Agency launched a corporate transformation programme with the aim of aligning the Agency's organisation with its new mandate and responsibilities. The programme, named 'eu-LISA 2.0', aimed to ensure that the reorganisation process was delivered in an open and transparent manner, and actively engaged the Agency's staff. A key element of the programme was the new organisational structure of the Agency. It was rolled out on 1 September 2019. A completely new organisational matrix structure has been designed and implemented for the Operations Department. The organisation of corporate functions was also redesigned.

## Sites

The Agency has started a project to extend its technical site facilities in Strasbourg. Following an *ex ante* check with the European Commission and the French representative of the Management Board, it was agreed that the French Ministry of the Interior will support the Agency for the design and implementation of the project. At the end of 2019, the Agency signed a contract for a programmers' service to prepare the preliminary design and technical conditions for a technical design service that should start at the end of 2020.

## **Budget implementation**

In 2019, eu-LISA managed a budget of EUR 288.4 million in commitment appropriations and EUR 138.1 million in payment appropriations received from the EU general budget. The Agency retained a high budget implementation rate, in particular:

- 99.7% for commitment appropriations, taking into account the non-automatic carry-over of commitment appropriations authorised by the Management Board in February 2020.
- 99.3 % for payment appropriations including the carry-forward of administrative expenditure to 2020.

## Main risks and issues reported to the Management Board

The major risks and issues reported to the Management Board during the year were related to the implementation of the new tasks entrusted to the Agency, the budget implementation and the planning of the next Multiannual Financial Framework 2021-2027.

The Agency provided regular monthly reports to the Management Board on the progress with implementing EES and ETIAS. They included a detailed status of the work and identified risks and issues. Regular reports from the proceedings of the EES/ETIAS AG were provided as well.

These reports were used by the Management Board to formulate 15 decisions and recommendations related to the implementation of EES and ETIAS at central and national level. The Board was also regularly informed about the progress of the major procurement procedures launched by the Agency.

The Agency provided regular information concerning its needs for the new MFF period 2021-2027 and the associated risks. In June 2019, the Management Board expressed its concern about the difference between the financial resources requested and allocated to the Agency and emphasised the negative effects and risks if that difference was not resolved.

The MB was also regularly informed and, together with the Agency, closely followed the project for the second extension of the Strasbourg technical site and the risk associated with the lack of facilities to host new systems, staff and on-site

contractors.<sup>4</sup> In order to mitigate the risk in a cost-efficient manner, the Agency investigated leasing temporary office space and setting up a temporary infrastructure on site for the extension of the primary data centre.

The MB was regularly updated on the status of implementation of the Agency's transformation programme (eu-LISA 2.0), which is closely connected to an identified corporate risk (organisational instability).

## Assessment of internal controls by the Management

The management of the Agency has reasonable assurance that appropriate internal controls are in place and that they are functioning as intended. Throughout the year, the major risks were appropriately identified and managed. This assurance is further confirmed by the results of the internal and external audits.

## **Audit results**

No critical recommendations were made to the Agency during audits performed in 2019 by the European Court of Auditors, independent external auditors, the Commission's Internal Audit Service or the Agency's Internal Audit Capability. All other recommendations were addressed in related action plans and in 2019 the Agency made further progress with their implementation.

## Risks

In 2019, eight major corporate risks were identified. A corporate risk response plan was established to address them. None of the identified risks materialised during the year.

<sup>4</sup> Preliminary information on the project was submitted to the budgetary authorities on 2 April 2019.

## Introduction

The purpose of the Consolidated Annual Activity Report of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice is to give a structured overview of the activities performed and objectives achieved in 2019.

## **Background information**

The European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice was established in 2011 by Regulation (EU) No 1077/2011 and became operational on 1 December 2012. The Agency was established to provide a long-term solution at EU level for the operational management of current and future large-scale IT systems in the area of freedom, security and justice. On 11 December 2018, Regulation (EU) 2018/1726 on the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA)<sup>5</sup> entered into force and replaced and repealed the previous eu-LISA establishing regulation. Regulation (EU) 2018/1726 expanded the Agency's mandate. This new mandate strengthens the Agency's capacity to improve and develop information systems for European security, border management and migration, and broadens the scope of the Agency's work on research and innovation.

eu-LISA currently manages the Schengen Information System (SIS),<sup>6</sup> the Visa Information System (VIS)<sup>7</sup> and the European Asylum Dactyloscopy Database (Eurodac).<sup>8</sup> These systems are essential for the smooth functioning of the Schengen area. At its external borders, these IT systems are critical to the efficiency of border management and ensure the implementation of common EU asylum and visa policies. Within the Schengen area, the availability of these systems is crucial in order to guarantee the freedom of movement of EU citizens.

The Agency is at the same time developing the Entry/Exit System (EES),<sup>9</sup> the European Travel Information and Authorisation System (ETIAS),<sup>10</sup> the centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN),<sup>11</sup> and the new components that will shape the framework for the interoperability of the systems entrusted to the Agency, as per the interoperability regulations.<sup>12</sup>

## Our mission, vision and core values

The Agency's mission is based on its legal mandate provided in Regulation (EU) 2018/1726 and focuses on *continuously* adding value for Member States by supporting through technology their efforts for a safer Europe.

This mission is delivered through the Agency's vision, which is to provide high-quality and efficient services and solutions to stakeholders, to earn their trust through continuously aligning the capabilities of technology with the evolving needs of Member States and to grow the Agency as a centre of excellence in the area of Justice and Home Affairs (JHA).

The Agency's mission and vision are translated into operational activities through the core values of eu-LISA. They drive and underpin all operational activities and the strategic development of the Agency. These values are:

<sup>5</sup> 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.

<sup>6</sup> Regulation (EU) 2018/1860, Regulation (EU) 2018/1861 and Regulation (EU) 2018/1862, OJ L 312, 7.12.2018, pp. 1-106; Regulation (EC) No 1986/2006 and Regulation (EC) No 1987/2006, OJ L 381, 28.12.2006, pp. 1-23; Council Decision 2007/533/JHA, OJ L 205, 7.8.2007, pp. 63-84.

<sup>7</sup> Regulation (EC) No 767/2008, OJ L 218, 13.8.2008, pp. 60–81.

<sup>8</sup> Regulation (EU) No 604/2013, OJ L 180, 29.6.2013, pp. 31-59.

<sup>9</sup> Regulation (EU) 2017/2226, OJ L 327, 9.12.2017, pp. 20-82.

<sup>10</sup> Regulation (EU) 2018/1240, OJ L 236, 19.9.2018, pp. 1-71 and Regulation (EU) 2018/1241, OJ L 236, 19.9.2018, pp. 1-73.

<sup>11</sup> Regulation (EU) 2019/816, OJ L 135, 22.5.2019, pp. 1-26.

<sup>12</sup> Regulation (EU) 2019/817 and Regulation (EU) 2019/818, OJ L 135, 22.5.2019, pp. 27-135.

- Accountability: deploying a sound governance framework, sound financial management and cost-efficient
  operations.
- *Transparency*: communicating regularly and openly with the Agency's key stakeholders and engaging them in a continuous dialogue to define the long-term strategy for the development of the Agency.
- **Excellence**: having the right organisational structure, the right people and the right processes in place to ensure service continuity to the Member States.
- **Continuity**: ensuring that the Agency makes the best use of expertise, knowledge and investments made by the Member States and continues to develop expertise and knowledge.
- **Teamwork**: seeking to empower each individual team member to make the best use of his or her knowledge and experience, contributing to the Agency's success.
- Customer focus: ensuring that the Agency is aligned at all times with the needs and demand of its stakeholders.

## Where we are located

The seat of the Agency is in Tallinn, Estonia, while the operational management of the systems entrusted to the Agency is carried out in Strasbourg, France. eu-LISA also has a technical backup site in St Johann im Pongau, Austria, and a liaison office in Brussels, Belgium.

## Legal background

Article 24(3)(g) of Regulation (EU) 2018/1726 requires the Executive Director to prepare and submit the draft of the Agency's Consolidated Annual Activity Report to the Management Board for assessment and adoption, after prior consultation with the Advisory Groups. Article 1g(1)(t) of the same Regulation requires the Management Board to assess and adopt the Agency's Consolidated Annual Activity Report for the previous year, comparing, in particular, the results achieved with the objectives of the Annual Work Programme. The Management Board is required to send both the report and its assessment by 1 July of each year to the European Parliament, to the Council, to the Commission and to the Court of Auditors and to ensure that the Annual Activity Report is published.

# 1 Achievements of the year

The Agency's Strategic Goals have been defined with the Member States and the European Commission in the eu-LISA long-term strategy 2018-2022.<sup>13</sup> The Strategic Goals reflect the Agency's mandate and provide the structure on which the Agency sets its multiannual strategic objectives. The activities undertaken by the Agency contribute towards achieving its four Strategic Goals:

Strategic Goal 1: continue to grow as a contributor to, and implementing partner for, the relevant policies in the EU. Strategic Goal 2: maintain and extend the role of the Agency as an EU information and communications technology (ICT) centre of excellence and service provider.

**Strategic Goal 3**: continue growing as the principal EU ICT technology hub.

**Strategic Goal 4**: continue to develop an efficient and agile organisation in compliance with the EU regulatory framework.

## 1.1 Strategic Goal 1

## CONTINUE TO GROW AS A CONTRIBUTOR TO, AND IMPLEMENTING PARTNER FOR, THE RELEVANT POLICIES IN THE EU

## 1.1.1 Operational management of the systems

The core operations of the Agency in 2019 were aimed at maintaining continuous 24/7 operations of the large-scale IT systems under its mandate: SIS II/AFIS, VIS/BMS and Eurodac. It was therefore a key success for eu-LISA to achieve this objective within the legal requirements and agreed service levels, and with a high level of customer satisfaction.

The overall performance of the systems in 2019 was good and comparable with that of 2018. More specifically:

- The SIS II central system availability was 99.95 % (KPI 6) and the SIS II central system response time was 99.84 % (KPI 7).
- The VIS central system availability was 99.65 % (KPI 8) and the VIS central system response time was 97.79 % (KPI 9).
- The availability of the Eurodac central system was 99.55 % (KPI 3) and the Eurodac central system response time was 99.91 % (KPI 4).

The results of the eu-LISA Stakeholder Satisfaction Survey in 2019 were also very positive, with a consolidated result of 93.4 % satisfied or very satisfied users (KPI 20). In addition, the performance of the Member States systems helpdesk (KPI 22) reached 90 %, exceeding the target (80 %). The eu-LISA Stakeholder Satisfaction Survey is a regular feedback mechanism developed to obtain user feedback from the MS regarding the support provided by the Agency. Measuring stakeholder satisfaction helps the Agency identify whether its performance meets the needs and expectations of the Member States. This feedback is collected for SIS, VIS and Eurodac through the annual satisfaction survey procedure. The survey covers the overall performance of the eu-LISA service desk, incident and problem management, operational communications, technical assistance for national activities and release management. The replies are collected from the Member States, consolidated and reviewed by each of the process owners.

## SIS

#### Operations

During the reporting period, the overall performance of the SIS central system was within the agreed service-level agreement (SLA). The maintenance in working order (MWO) transition process has been finalised.

<sup>13</sup> https://www.eulisa.europa.eu/Publications/Corporate/eu-LISA%20Strategy%202018-2022.pdf.

Support for the Member States was provided on a continuous basis within the Agency's IT service management (ITSM) framework. Monthly reports were delivered on time and accepted. The availability of the SIS II central system was 99.95 % (KPI 6, slightly below the 99.99 % green target, 99.5 % amber target achieved¹⁴) and the SIS II central system response time was 99.84 % (KPI 7, 99.5 % green target achieved). Events preventing the system from behaving appropriately were managed in a timely manner so that performance remained within the SLA with end-users. The Agency carried out corrective, adaptive, perfective and preventive maintenance tasks to achieve this objective, deploying a total of two releases.

In late July, after a switchover to the BCU, Member States and eu-LISA detected a significant degradation on queries performance that caused many rejections of central queries. The Agency took the immediate decision to switch back to the CU, which was effected and operational the same day. A very large number of central queries due to the holiday period was identified as the root cause. Together with the MWO contractor, eu-LISA decided to increase the memory on BCU servers. Switchovers done in Q<sub>3</sub> and Q<sub>4</sub> 2019 confirmed that the BCU is ready to handle an increased load of central queries. This event also highlighted the need for an increase in SIS capacity.

The biometric search capabilities of SIS, SIS-AFIS, were also heavily used in 2019, proving their worth to the European law enforcement community. Once biometric fingerprint information is added to a European Arrest Warrant, SIS AFIS enables a wanted person to be identified much more quickly. The SIS AFIS was also operated and successfully maintained, with no major incident. AFIS is now being used by 19 Member States.

eu-LISA continued to add value with its support to both Member States and the JHA agencies with access to the SIS (Europol, Eurojust and Frontex). A dedicated support team from eu-LISA supported these 35 stakeholders in carrying out compliance tests on new national systems, Sirene workflow systems and in the qualification of new message-oriented middleware.

#### **Statistics**

Statistical data from 2019 confirm that SIS II remains the largest information-sharing system for security and border management in the Member States, and its usage keeps steadily increasing (Figure 1).

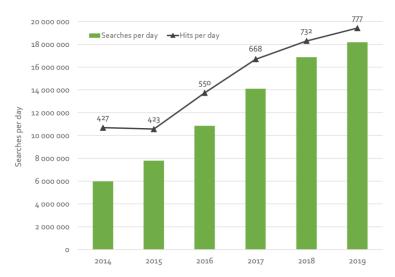


Figure 1: Average number of SIS II searches and hits per day (2014-2019)

A progressive upward trend in the system is observable since 2014, when annual statistics were first published. Back in 2014, SIS II was searched on average almost 6 million times per day, whereas in 2019, competent authorities all over Europe searched SIS II 18 million times per day on average. Important factors that have

<sup>14</sup> Key performance indicators are summarised in Annex I.

increased the usage are new users, namely the UK since 2015 and Croatia since 2017, as well as new use cases (e.g. systematic checks).

In 2019, SIS II was accessed more than 6.6 billion times by Member States and associated countries, 8 % more than in 2018 (Figure 3).

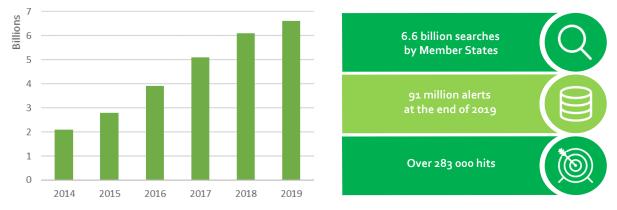


Figure 3: Number of SIS II searches per year (in billion, 2014-2019)

Figure 2: Key 2019 statistics for SIS II

On 31 December 2019, SIS II contained over 91 million alerts (Figure 2), an 11 % increase compared with 2018.

The largest alert category was 'Issued document', making up 75.5 % of the total alerts. The SIRENE Bureaux processed 283 713 hits, an increase of 6 % compared with 2018. A total of 983 124 alerts on persons represent over 1 % of the total number of alerts, while triggering over three-quarters of the total hits recorded.

## VIS/BMS

#### Operations

The Agency operated the VIS and BMS through regular and comprehensive maintenance during the reporting period. Reports were provided to the Member States, detailing the incident resolution times. Overall, the VIS system performed well, in line with the SLA. There were some issues with the BMS but the performance of the systems remained at a satisfactory level. The availability of the VIS central system was 99.65 % (KPI 8, 99.5 % amber target achieved¹5) and the VIS central system response was 97.79 % (KPI 9, 90 % amber target achieved). Reaching the high availability green target (99.99 %) will either require an overhaul of the system, to be done during the VIS recast, or an active-active setup, as the current architecture with an active-passive site setup prevents the full achievement of the high availability target.

The virtualisation of the BMS was deployed with the 2018 release 3 and fully implemented in production, both on CU and BCU, in April 2019. The objective of this release was to align the BMS with the new test environment. This release, however, led to an incident that occurred on the BMS in June when a performance degradation and a large number of asynchronous transactions started occurring, generating error messages. The issue appeared to vary depending on the time and traffic intensity. A thorough investigation was launched. The Agency and the MWO contractor employed significant resources on the investigation and resolution of this issue in order to find and eradicate the root cause. This behaviour was never observed during the load, soak and stress tests and so replicating it in the test environments was challenging. During the period, the Member States were regularly informed about how the situation was evolving. Taking remedial action alleviated the overall situation before a solution could be found. The issue was solved successfully with the contractor. A workaround was initially used to fix the issue. A patch for middleware components was deployed in September.

<sup>15</sup> Key performance indicators are summarised in Annex I.

The medium-term solution to the issue will involve a reconfiguration of the middleware database and application, which will be implemented with the 2020 releases 1 and 2.

Owing to this issue with the BMS, no other release was implemented in 2019. The planned BMS virtualisation step 2, initially planned for Q4 2019, was postponed to Q1 2020.<sup>16</sup>

#### **Statistics**

In 2019, over 294 million VIS operations and 17 million visa applications were processed, an increase of 7.3 % and 6.6 %, respectively, on 2018 (Figure 5 and Figure 4).

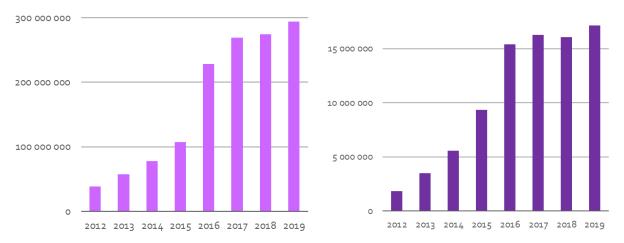


Figure 5: Number of VIS operations per year (2012-2019)

Figure 4: Number of visa applications per year (2012-2019)

In June 2019, an all-time peak was reached with 139 000 operations per hour. For the VIS, the maximum throughput without performance deterioration is currently 450 000 messages per hour.

On 1 January 2020, there were 77.07 million visa applications, 77.04 million facial images and 68.74 million fingerprint sets in the VIS database (Figure 6). By comparison, there were 11.6 million visa applications and 9 million fingerprint sets in the VIS database in 2014. The five biggest VIS users were France, Germany, Italy, Spain, and Greece. The five most active VIS regions were the Russian Federation, East Asia, North Africa, India and Pakistan, and the Gulf region. The average time between visa application and issuance was 8.9 days.

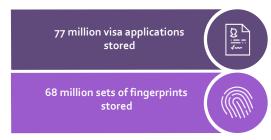


Figure 6: Key 2019 statistics for VIS/BMS

## Eurodac

#### Operations

During the reporting period, the Eurodac system's performance was according to the agreed SLA. Overall, continuous availability was ensured, along with all necessary services to ensure the normal functioning of the system. The availability of the Eurodac central system was 99.55 % (KPI 3, 99.5 % amber target achieved<sup>17</sup>) and the Eurodac central system response level was 99.91 % (KPI 4, 99.45 % green target achieved).

<sup>16</sup> As of March 2020, the release is implemented in the production at the BCU, but the installation at the CU was further postponed due to the restrictions imposed by the COVID-19 pandemic.

<sup>17</sup> Key performance indicators are summarised in Annex I

In March, an incident happened following the installation of a new certificate, and the Eurodac central system remained unavailable during the night. To fix the incident, a rollback operation was performed, followed by a new installation of the certificate.

Between May and July, Eurodac experienced some short outages due to the malfunctioning of one component. Following a thorough analysis by both eu-LISA and the MWO contractor, a technical solution was found and implemented by mid-July.

As part of the ITSM framework integration, all Member States (with the exception of the UK) migrated to the new 'Single Point of Contact' (SPoC), and a majority of Member States started using the Service Manager 9 (SM9) tool, streamlining and harmonising the interactions with all MS across the systems.

The update of the Eurodac operator manual (version 1.35), detailing the operational procedures for both Member States and eu-LISA, was distributed to the SPoC by mid-December, following the presentation of changes to the Eurodac AG.

In November, a Eurodac security exercise was carried out. The main goal was to test the security, the business continuity and the disaster recovery capabilities of Eurodac. Six countries were involved: Finland, Italy, Latvia, the Netherlands, Portugal, and Switzerland. ENISA and the Commission supported the preparations and the execution. This exercise yielded valuable information on how to further optimise the internal and external processes and policies for the continuous operation of the system.

From 2 to 4 December, EDPS audited the Eurodac system. In accordance with the legal instruments, EDPS conducts a data protection audit on the Eurodac central system every three years. During the audit, eu-LISA answered all the questions from the auditors, provided the requested evidence and presented live examples during hands-on sessions.

#### **Statistics**

In 2019, the Member States successfully transmitted 916 536 sets of fingerprints to the Eurodac central system (Figure 7). Compared with 2018, the total number of transactions to Eurodac in 2019 increased by four per cent. The last peak was reached in 2015 with record traffic of almost two million transactions. By the end of

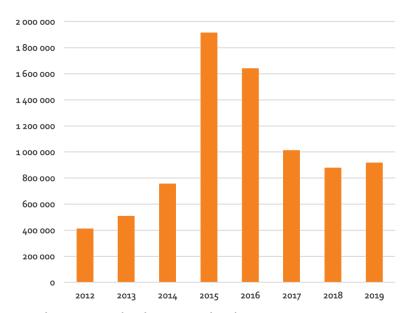


Figure 7: Eurodac data transmitted per year (2012-2019)

<sup>18</sup> The final report was adopted by the Eurodac AG in February 2020.

December 2019, the Eurodac central system was storing 5.69 million sets of fingerprints (a 6 % increase over 2018).

More specifically, the Eurodac central system processed 592 691 sets of fingerprints of applicants for international protection (Figure 8) aged 14 years or older (category 1) and 111 761 sets of fingerprints of persons aged 14 or older apprehended when irregularly crossing the external border of a Member State (category 2). A further 211 635 sets of fingerprints of persons aged 14 or older illegally present on the territory of a Member State were sent under category 3.



Figure 8: Key 2019 statistics for Eurodac

The designated Member State law enforcement authorities sent 449 sets of fingerprints for the purpose of the prevention, detection or investigation of terrorist offences or of other serious criminal offences (category 4). Europol did not send any sets in 2019 (category 5). The numbers of datasets per category are shown in Figure 9.

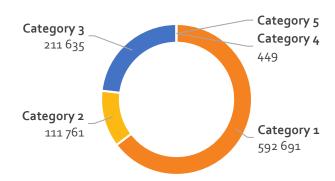


Figure 9: Breakdown by category of datasets sent to the Eurodac central system in 2019 DubliNet operations

During the reporting period, DubliNet was maintained by ensuring that the network and certificate services were continuously available to the Member States.

In June, Cyprus was facing connection issues with other Member States, which in turn affected the exchange of DubliNet emails. The instability of the connection lasted for four weeks before a solution was found and implemented locally by the Cypriot team.

Between 28 September and 5 October, the TESTA-ng operator performed a failover exercise on their mail relay service. All email traffic handled by the primary TESTA-ng mail relay was switched over to the secondary mail relay. As a result, a few Member States (for both Eurodac and DubliNet) could not send or receive any emails. The root cause was identified as an incorrect configuration in the affected Member States. After TESTA-ng switched back to the initial configuration, all Member States' traffic went back to normal.

## IT service management

## Systems operation support

To ensure the continuous availability of its systems, eu-LISA operates a 24/7/365 systems support, staffed by a workforce operating in shifts. The performance of the systems service desk in 2019 was very good and reached 90 %, exceeding the target (80 %). It is measured by the corporate KPI 22 'MS systems service desk performance'. This indicator measures the ability of the Agency to provide end users with support for help requests and incident resolution. The indicator measures the availability of support (time to respond) and the

performance of support (time to resolve). As a result, the indicator shows the percentage of requests completed within the criteria set in the service level agreement (SLA) between eu-LISA and the Member States. In 2019, the Agency handled more than 5 100 tickets: 3 854 incidents and 1 329 service requests (Table 1). More than 1 168 tickets were submitted by the Member States, and 4 015 were submitted internally, either from monitoring events or from the MWO contractors.

Table 1: Number of incidents and service requests handled in 2019

	SIS	VIS	Eurodac	Total
Incidents	869	1 719	481	3 069
Opened by the MS	384	258	190	832
Opened internally	485	1 461	291	2 237
Service requests	789	270	270	1 329
Opened by the MS	241	85	57	383
Opened internally	548	185	213	946

Out of 3 069 incidents handled in 2019, 40 were of critical priority: 14 for SIS II, 8 for VIS and 18 for Eurodac (Table 2).

Table 2: Breakdown of incidents by priority and system

Priority	SIS	VIS	Eurodac	Total
Low	122	455	86	663
Moderate	386	676	147	1 209
High	347	580	230	1 157
Critical	14	8	18	40
Total	869	1 719	481	3 069

## Deployment of the Single Integrated Monitoring Solution

In 2019, the Agency worked intensively on the design and implementation of the next-generation solution used by its first and second-level support functions for the monitoring of the large-scale IT systems. This solution, called Single Integrated Monitoring Solution (SiMS) was deployed in a newly created 24/7/365 monitoring room in the refurbished data-centre building of the Agency's technical site in Strasbourg (Figure 10). The installation allows the monitoring of current and upcoming large-scale IT systems in the same way, bringing about significant gains in efficiency and effectiveness. The solution provides an overview of the functionality of all systems and facilitates the early identification and investigation of irregularities.

The SiMS features five fully equipped 24/7 monitoring desks with a 5 m long video wall containing eight 46-inch screens, which can be interconnected or pooled together in a 'big picture' (Figure 10). All 90 workstations from the three different systems environments are combined into one central tool without being connected to each other, enabling the first-level or second-level officer easily to select the source (environment) they need to work on from their workstations. Every workstation is only equipped with monitors, a mouse and a keyboard; all the other hardware is safely and securely mounted on racks inside the data centre. In terms of ergonomics, the room is equipped with a fully



Figure 10: The Single Integrated Monitoring Solution deployed in Strasbourg

thought-through solution for 24/7 use. This includes automated night/day light management of all screens and personally adjustable furniture. Touchpads enable quick and easy selection of the required environment and can be forwarded to other offices, or even into the interconnected meeting room.

In a second phase, the SiMS will be deployed at the backup technical site, but on a smaller scale. The planning phase has already started, and the installation and implementation is planned for 2020.

#### Change management

The Change Management process for large-scale IT systems managed by eu-LISA was launched after the endorsement of the Advisory Groups and the approval of the Management Board in 2013. After almost seven years, the Change Management process has reached a level of maturity recognised by all stakeholders. The systems entrusted to eu-LISA have also reached a high level of stability. Consequently, fewer change requests have been submitted by the Member States or the Commission. The complexity of the submitted change requests, however, has increased, requiring significant effort to assess them. In this process, the Change Management Group is in charge of identifying and agreeing on the way to implement the requested changes. The changes then have to be approved by the respective Advisory Groups and the relevant Committees. Whenever possible, changes were implemented within a planned release. When these changes required more complex test activities, or had dependencies with other changes, they were planned for implementation within the forthcoming recasts of each application. This approach mitigates the impact of the implementation, testing and validation of these changes for both the Member States and the Agency.

For SIS, eight new change requests were managed for enhancements and updates of existing functionalities. Three requests were classified as major and five as minor. The main focus was on solving the issue related to the implementation of the ICAO 2015 transliteration rules. A task force was established to identify a solution, to agree on the way to implement this change and finally to coordinate and align the activity with the MS to fill the gap discovered in the application. The change was implemented with the first SIS release of 2019. Four changes are planned for implementation in 2020, and three are planned for the SIS recast.

For VIS, the work of the Change Management Group focused on the assessment of the impact of the VIS-EES interconnection. This was a very significant task, requiring the major involvement of the Agency and the Member States. A task force was established; three dedicated meetings and four remote meetings took place to carry out a thorough assessment of the changes to VIS stemming from the EES Regulation and identify the way to implement them. More than 30 changes were listed and will have to be implemented in VIS ICD to ensure

the interconnection with EES. In addition, three new change requests were managed, all classified as major. One was an emergency change, and two are planned for the VIS Recast.

For **Eurodac**, six new change requests were managed. All change requests were usability enhancements, classified as minor but of considerable importance for the Member States. The main change request pertained to the increase of the platform capacity, which was needed to deal with the additional workload due to the increased number of asylum seekers. Other enhancements related to MS operational and usability needs.

Thanks to the continuous work and cooperation with the Member State experts, the majority of change requests have been swiftly implemented. To date, all changes implemented or planned for implementation have been supported by all Member States. This is a major achievement of the Change Management process, demonstrating its ability to unite MS experts for the assessment and drafting of the proposed enhancements.

#### Testing, release and deployment management

Before the deployment of releases, extensive testing was performed. eu-LISA progressed towards the implementation of an end-to-end testing platform for the large-scale IT systems. After the selection of the solution, the implementation and training phases were concluded. The solution is currently ready to be used for the EES development, and it will be gradually extended to all other systems, following a cost-benefit analysis.

The deployment of SIS II, VIS and Eurodac releases is defined in the Release and Deployment Management Policy. The deployment and release activities are planned and performed in such a way as to minimise the impact on the operational activities of the systems, with special attention being paid to their performance and availability. In 2019, the following releases were deployed.

SIS II: one release was implemented in the production environment. Apart from adaptive and corrective items, this release contained the implementation of ICAO 2015 specifications, which was a business change, impacting the Member States' data. A second release was completed on 8 January 2020, containing mainly changes allowing the integration of Frontex as a new SIS user and the extension of the access for Europol and Eurojust.

VIS: three releases were implemented in the production environment. The first release of 2019, postponed from 2018, contained the virtualisation of the BMS. The second release contained adaptive and corrective items as well as the VIS capacity upscale to 100 million records. Finally, the last release of 2019 contained the integration of Europol as a new user.

**Eurodac**: one release was implemented in the production environment. This release focused on the implementation of corrective and adaptive technical changes. The entry into operation of the second planned technical release was postponed until 2020.<sup>19</sup>

The Agency launched a holistic approach for 'Application Lifecycle Management' (ALM) to deliver IT components and applications faster and in a more agile way. The reuse of common components and the interconnectivity and interoperability of new systems bring additional complexity over the application lifecycles. The ALM approach enables the automation of the lifecycle management process and ensures better traceability throughout reporting, analysis, development, testing, deployment and quality assurance by enabling a coherent and comprehensive application lifecycle governance. As an initial step, a study was launched in December 2019 to identify the existing capabilities and gaps and define a roadmap for the implementation of the application lifecycle governance. The study is planned to be carried out during the first half of 2020.

<sup>19</sup> It was deployed in February 2020.

## 1.1.2 Evolution of the systems

## SIS

In 2019, eu-LISA's main efforts regarding SIS were focused on the timely implementation of the SIS Recast Regulation, in parallel with continuing the SIS AFIS development. To answer the needs of the Member States and the continuous increase in the number of searches, the Agency started a project to increase the queries capacity. The 2015 ICAO transliteration rules were implemented and the Agency supported the integration of new users (Cyprus, Ireland, and Frontex).

#### SIS Recast

Following the entry into force of the SIS recast regulations on 28 December 2018, a number of activities started. The SIS subgroup of the Expert Group on information systems for borders and security (SIS Expert Group) started meeting on 29-30 January under the new SIS legal framework. This initiated the first round of discussions on the description of new functionalities and technical requirements for the central system, the possible and preferred options for implementation and their technical and operational implications. During 2019, the SIS Expert Group met on a regular basis to address topics such as new requirements concerning object alerts, new statistical requirements and the use of SIS for the return of illegally staying third-country nationals. As part of the SIS recast, several review cycles of the interface control document (ICD) and of the detailed technical specifications (DTS) took place until the end of 2019.

A successful SIS II Release 9.3.0 was deployed in January 2020. In compliance with the new legal basis, this release included new access control features that enabled Europol, Eurojust, and Frontex to query all relevant types of alerts in the system and perform fingerprint and extended search queries. In addition, AFIS functionality has been enriched with a search on slap fingerprints. The use of the features for Eurojust and Frontex will be fully enabled once the validation and the connection of their systems are done.

## AFIS phase 2

Several MS (Belgium, the Czech Republic, Spain, Iceland, and Lithuania) progressed with the validation and connection to AFIS phase 1.

AFIS PMF to combine the AFIS Phase 2 with the additional biometric requirements stemming from the SIS recast, taking into account the tight schedule for the design phase of AFIS Phase 2. The objective of the AFIS Phase 2 project is to identify the requirements and the corresponding design for the improvement of the system's performance and for the extension of biometric search capabilities with dactyloscopic data on palms and latent fingerprints. This extension of the biometric system will be available for border checks (first-line) and at police stations (second-line). This new feature will also be used as part of police investigations. Following the AFIS Phase 2 design phase (September-December), the user requirement document was approved by the different stakeholders.<sup>20</sup>

#### ICAO transliteration rules

On 9 October 2019, after 6 months of development, the Agency completed the deployment to SIS II of the 2015 ICAO transliteration rules. This was an important milestone for SIS II, and was the most challenging and complex enhancement of the system since its entry into operation in May 2013.

The transliteration of special national characters is a basic functionality of SIS II, and facilitates the creation of alerts and their retrieval when the system is queried. In 2018, owing to an incident reported by some Member States, the Agency discovered that SIS II did not contain values that are in the latest ICAO Specifications. ICAO

<sup>20</sup> The implementation phase started in January 2020.

updated the specifications for Machine Readable Travel Documents in 2015, with new transliteration tables. This successful evolution of SIS II demonstrates the Agency's excellent collaboration with the Member State experts, who contributed to the assessment of the issue and the definition of the solution.

#### Increase in queries capacity

On 1 April, the project for the increase in SIS queries capacity was launched. The increase in queries capacity is a major evolution of the SIS central system, and is needed to match the increasing use by Member States and the exponential growth of the number of alerts. The alert capacity will eventually reach 130 million. The project was divided into three main stages: the first release was deployed and included an upgrade of the WebLogic application software. <sup>21</sup> The second release will address the search engine. Lastly, the third release will deploy an upgrade of the database.

#### Integration of new users

eu-LISA continued to support that part of the SIS community not yet connected to the production system. In Q3 2019, the project to connect the Republic of Cyprus was started. eu-LISA worked together with representatives of the Ministry of the Interior and its police force for the start of the project and a training session. Significant progress was made towards the integration of the Republic of Ireland: in December 2019 the final Test Summary Report was adopted, leading to technical readiness for integration into SIS in 2020. In Q4 2019 the connection of Frontex to SIS was established, as a key aspect stemming from the SIS recast.

## VIS/BMS

The evolutions of the system in 2019 aimed to ensure that it has sufficient capacity to meet the growing needs of the Member States, stemming from the implementation of the EU Common Visa Policy. These evolutions included VIS and BMS as well as test environments made available to the Member States. The Agency also worked on the integration of new users (Europol, passive access for Bulgaria and Romania). The evolutions of VIS/BMS have been strongly influenced by the future VIS-EES interconnection.

#### Capacity increase

Projections are regularly computed by eu-LISA as part of capacity management in order to anticipate the appropriate actions for preventing any shortage and critical impact on the operations. The first version of VIS, which entered into operation in 2011, was planned to manage up to 100 million applications. An in-depth analysis in 2015 showed that the average size of a visa application was significantly higher than expected, resulting in a storage capacity lower than the target number of applications. Actions were taken from that point in order to bring the storage infrastructure up to the necessary level. As a result, in June 2019, a new release was deployed increasing the storage capacity of VIS to 100 million records. This capacity level is expected to cover the long-term business needs, with some margin to cope with potential future decisions or events that would lead to an increasing use of VIS and a need for additional capacity.

The capacity increase of the BMS database also progressed with the detailed design of the technical solution, the configuration of the environments and the execution of the project test campaign. The project was technically ready to be completed and the release was ready for deployment in Q4 2019. However, following the incident that occurred in Q2, the BMS production system required additional tests during the second half of 2019. In the meantime, a decrease in the number of new visa applications was observed, which reduced the short-term priority of this capacity increase. It was then determined that postponing the deployment of this release was feasible from a business perspective. The deployment to production of the release was therefore postponed to the first half of 2020.

<sup>21</sup> The first release was deployed in Q1 2020.

#### Test environment

Following the evolutions of the VIS/BMS systems and their increase in capacity, new background databases have been successfully developed for testing purposes. These new background databases needed to be bigger, to match the new capacity of VIS and BMS. They also needed to be more representative, to increase the quality of tests, and linked together, to enable end-to-end testing. The completed project also included some test quick wins, for example automation of some test phases or the documentation of tools used for performance tests.

The implementation of the VIS/BMS end-to-end testing platform was concluded in Q1 2019. The objective of this project was the creation of a non-proprietary end-to-end test solution leveraging industry-standard tools (covering functional and non-functional aspects) for the VIS and BMS. As part of the project, a proof of concept of a test execution monitoring tool was performed as well. The new test management platform is now up and running.

The test environment upscale to 100 % of the pre-production capacity was planned in order to align the test conditions with the production ones, resulting in more accurate performance and endurance tests. However, in the meantime, the allocated budget and resources had to be reprioritised in order to launch the VIS-EES interconnection project, which is of higher priority and is subject to stricter planning constraints.

Following a critical incident in 2019 on all test platforms over a period of two weeks, Member States expressed the need to introduce a dedicated SLA and test environments less prone to failure. A dedicated project was therefore launched in order to make the VIS test infrastructure more resilient, with improved monitoring and reactivity in case of failure.<sup>22</sup>

#### VIS/BMS resource optimisation

In order to use the VIS/BMS computing resources efficiently, the Agency planned to improve the VIS/BMS front-end configuration to align the distribution of transactions with Member States' actual use. In 2019, the analysis report on the tuning of VIS/BMS transactional throughput was delivered and accepted. In the meantime, however, it was assessed that the introduction of the VIS-EES interconnection would have a significant impact on the VIS/BMS transactions usage and distribution. As a result, no implementation could be planned for the tuning of the transactional throughput. As soon as the EES final usage forecasts are released, the analysis will be performed once again, based on the same model, and the implementation will be initiated. On the other hand, the virtualisation of the BMS, which was a technical prerequisite for the transaction throughput tunings, was implemented and released in the production and non-production environments.

This VIS refactoring for the flexible transaction tuning project, initiated in 2017, aimed at conducting a proof of concept in order to improve the flexibility of VIS capacity and performance by using a dynamic service-based model. However, the VIS-EES interconnection project introduced new requirements and technical constraints not aligned with this project. In addition, the critical requirement of 'zero downtime' was not met. As a result, it was considered that the output of this proof of concept could not be used for further evolutions of the VIS.

#### Integration of new users

A special contract was signed in August 2019 to prepare for passive access to the system for Bulgaria and Romania, as well as potentially for Croatia, should a decision be made in the European Council. This passive access (the right to query the VIS) is a prerequisite for Member States to be able to implement and use the EES. For all those Member States, eu-LISA continued to provide support in testing and training. The implementation progressed with a slight delay due to additional testing required for full validation of the functionality. The related VIS release is planned to be deployed in June 2020.

 $<sup>^{22}</sup>$  The project is in the review process and is planned to be implemented by  $^{Q2}$  2020.

At the same time as attending the SIS accession meeting in Cyprus, the eu-LISA delegation also visited the Cypriot Ministry of Foreign Affairs to discuss training roadmaps for their central operations.

The project for the integration of Europol continued: the change request contract was signed and the compliance test campaign started at the end of June. The functionality was implemented in production in October 2019. However, as the national interface is not yet completely ready, Europol might not use its access before Q1 2020.

## Eurodac

In 2019, all projects planned for Eurodac were related to particular technical evolutions. Regrettably, the recast of the Eurodac Regulation had still not been adopted by the co-legislators and all functional evolutions of the system were put on hold.

#### Communication model

The Agency had planned to change the Eurodac communication model to web services in 2019. The goal and scope of the project were presented to the Eurodac AG, which gave a negative opinion on the implementation of this development before the Eurodac recast. According to the Eurodac AG, a costly change to the National Access Point (NAP) would not bring any added value from the business point of view. Web services would be required after the recast implementation, when a larger amount of data will be exchanged between Member States and the Eurodac central system. Additionally, the Eurodac infrastructure design is no longer state of the art, and does not meet the requirements identified in the Interoperability Regulations. It is therefore planned to completely rebuild Eurodac, including its communication model based on web services, when implementing new functionalities coming from the new Eurodac legal instruments.

The first meeting of the UMF (universal message format) Eurodac Experts Group took place in March. This group was initiated by the Agency because of the changes of the communication model to web services, as well the future format of the data exchange under Interoperability. The purpose of this group is to drive, under the coordination of eu-LISA, the preparatory work for the UMF/Asylum extension and to provide the link between the Eurodac AG and the established UMF project governance. The group will also provide input for future DubliNet evolutions, such as the switch from PDF (Portable Document Format) forms to UMF-compliant web forms. Other stakeholders, such as EASO, were also involved in the process. In September, a second expert group meeting took place. All Eurodac use cases (based on the initial Eurodac Recast proposal) were extracted and analysed.

## Integration with the shared backup infrastructure

The integration of Eurodac with the shared backup infrastructure continued during the reporting period with a view to making efficiency gains. The first phase, the migration to the physical storage of the backup data within the CSI infrastructure, was achieved in June. The second phase, the upgrade of the application backup mechanism, was cancelled due to the technical limitations of the current Eurodac infrastructure. For this reason, a decision was taken to migrate instead to the CSI Backup-as-a-Service, which will be available in 2020.

## Multispectral imaging study

In April and May, eu-LISA carried out a study to assess whether the use of multispectral imaging (MSI) devices for the scanning of fingerprints would affect the performance of the Eurodac central system. This study was conducted with the support of Sweden and Norway, under the mandate of the Eurodac AG. The study concluded that MSI use does not degrade the performance of Eurodac. Moreover, Eurodac is able to process fingerprint images captured with the MSI scanners faster compared with optical live scanners. It means that on high volumes of transactions, the use of MSI may decrease waiting times on hit replies. In addition, the use of MSI technologies would not decrease the current level of accuracy of the Eurodac central system. Based on the

results of the study, eu-LISA concluded that the use of MSI scanning technologies may be implemented in parallel with other technologies, depending on the need and budget of each Member State. A report summarising the findings of this study was published on eu-LISA's website.<sup>23</sup>

## High availability of the large-scale IT systems

Systems entrusted to the Agency are of critical importance for border controls, internal security and migration management in the EU. Thus, the Agency must ensure their uninterrupted availability to the Member States and relevant EU Agencies. However, SIS, VIS and Eurodac have been developed at different times and are based on different architectures that do not completely ensure their high availability.

Article 10 of the Agency's establishing regulation provides that 'where the Union legal acts governing the systems require the Agency to keep those systems functioning 24 hours a day, 7 days a week and without prejudice to those Union legal acts, the Agency shall implement technical solutions to meet those requirements. Where those technical solutions require a duplication of a system or a duplication of components of a system, they shall only be implemented where an independent impact assessment and cost-benefit analysis to be commissioned by the Agency has been carried out and following the consultation of the Commission and the positive decision of the Management Board.'

Furthermore, Article 4(4) of the new SIS Regulation adopted in November 2018 provides that 'eu-LISA shall implement technical solutions to reinforce the uninterrupted availability of SIS either through the simultaneous operation of CS-SIS and the backup CS-SIS, provided that the backup CS-SIS remains capable of ensuring the operation of SIS in the event of a failure of CS-SIS, or through duplication of the system or its components. Notwithstanding the procedural requirements laid down in Article 10 of Regulation (EU) 2018/1726 eu-LISA shall, no later than 28 December 2019, prepare a study on the options for technical solutions, containing an independent impact assessment and cost-benefit analysis'.

eu-LISA initiated work on the impact assessment (IA) in 2019. However, to ensure the consistency of its results across all systems and to maximise the operational benefits, the IAS was designed in two phases. The first phase aimed to deliver an overarching independent impact assessment and cost-benefit analysis of the different capacity-oriented options for uninterrupted availability of all systems entrusted to the Agency. It was concentrated on the performance and high availability of the systems, examining in detail the existing and future needs that the technical solutions would create in terms of hosting capacity at the technical sites and the risks related to the current operational setup, assessing and comparing high-level options to extend the capacity and site redundancy. The first phase of the IA was finalised in March 2020.

In order to fulfil the legal requirement for an independent impact assessment and cost-benefit analysis for technical options to reinforce uninterrupted availability, the Agency will continue with the second phase of the IA in 2020. It aims to detail the technical and architecture solutions for uninterrupted availability of the systems entrusted to the Agency, including a further refined technical analysis and a cost-benefit analysis. The outcome of the second phase of the IA will provide the Agency with a comprehensive comparison of the identified technical solutions that will facilitate the identification of the preferred way forward, taking into account and leveraging on the new systems' architecture (EES, ETIAS, interoperability components), which is de facto designed to support uninterrupted availability (active/active mode). The final results of the IA will be presented to the Management Board in November 2020.

However, the practical implementation of the new high-availability architecture for these systems may only start in 2022 and depends on the availability of the necessary budgets under the new MFF 2021-2027.

 $<sup>{\</sup>tt 23} \quad https://www.eulisa.europa.eu/Publications/Reports/Eurodac\%2oMSI-Optical\%2oTest\%2oStudy.pdf. \\$ 

## 1.1.3 Development and implementation of new systems

## **EES**

In 2019, the Agency continued its work on the implementation of EES in close cooperation with the Member States and the European Commission. Due to the complexity of the implementation activities, the work has been organised as a programme that includes the following projects:

- EES central system.
- EES BMS and sBMS.
- EES web service.
- The interface of EES with the Common Repository for Reporting and Statistics.
- VIS-EES Interoperability.
- Network (including the VIS communication infrastructure).

At the end of 2019, progress with implementation was on schedule, with minor deviations that did not affect the general timeline and key milestones. Detailed information concerning the status of individual projects is provided below.

#### EES central system

On 17 May 2019, eu-LISA published the call for tenders for the framework contract for the development of the EES system. The contract was won by a consortium of three companies: IBM Belgium, Atos Belgium, and Leonardo. The overall ceiling of the EES framework contract is slightly over EUR 142 million for a maximum period of six years. The first specific contracts for the implementation of WP 1 and 2 were signed on 3 June 2019.

As of the end of December 2019, the programme setup phase (WP 1) was completed. All the deliverables have been submitted and reviewed by the Agency according to schedule. The requirements and specifications phase (WP 2) contains several complex deliverables related to detailed requirements for the system and its architecture. They include the functional specifications of the system, its detailed technical design and the interface between the central system and the Member States and Europol systems as well as with VIS. As of the end of December 2019, the work is progressing at full speed, although some delays have been observed. Nevertheless, there is no impact on the planned availability of the central system to start testing with Member States at the end of 2020 or on the planned entry-into-operation date of February 2022. The development phase (WP3) has also begun with the signature on 23 December of two specific contracts to cover the NUI delivery and installation and to procure licences for the automation of the release deployment.

## EES BMS and sBMS

Phase 1 of the EES BMS restricted call for tender was launched on 20 June 2018. The submission date for tenders was 1 October 2018, and it was followed by the evaluation, which was subsequently finalised. The Agency was ready with the tender technical specifications by the middle of February 2019. Considering the substantial progress achieved by then with the interoperability regulations (which eventually entered into force on 11 June 2019), eu-LISA and the Commission considered it beneficial to discuss the available options to reflect that progress in the EES BMS tender. After several rounds of bilateral discussions, eu-LISA and the Commission concluded in a joint note that the scope of the tender should be expanded to cover the migration to sBMS of VIS, SIS II, Eurodac and ECRIS-TCN. This option required the cancellation of the LISA/2018/RP/02 EES BMS procedure, which happened on 8 April 2019. With this approach, while extending the timeline for the procurement procedure for EES BMS/sBMS, the Agency has estimated that 9 to 12 months will be saved for the implementation of the interoperability regulations. In line with the expanded scope of the tender, a decision was taken that the biometric data for the VIS will also immediately use the sBMS without having its biometric data migrated for the EES onto an intermediary system, resulting in an estimated saving of EUR 30 million. The

new call for tender was launched (Phase 1) on 7 May 2019, with a submission date of 26 June 2019. Phase 2 of the tender was launched on 15 August 2019 and ended on 20 December 2019. <sup>24</sup>

The EES User Software Kit (USK), a tool needed to ensure the quality of biometric data, is also part of the scope of the sBMS call for tender. An internal requirement consolidation exercise for the USK was completed with the involvement of the EES, VIS, SIS and Eurodac teams.

#### EES web service for carriers and third-country nationals (reusable in the ETIAS context)

Together with Frontex, eu-LISA contributed to the preparation by the Commission of the Implementing Regulation on carriers, covering the obligations for carriers through the use of the carrier interface (EES web service and ETIAS carrier gateway), as well as the preparation of the Implementing Act for the public website and the application for the mobile websites.

The first informal meeting of the Working Group for Carriers, jointly organised by eu-LISA and the Commission, took place on 4 June 2019 in Brussels. The Working Group for Carriers aims to raise the awareness of the carrier associations concerning their obligations stemming from the EES and ETIAS Regulations as well as the Schengen Convention. It also monitors and discusses the status of carriers' preparation to implement the aforementioned legislation, including any relevant operational/technical considerations. Forty participants from 17 carrier representatives attended the first meeting and were invited to respond and provide their initial feedback. The second meeting of the working group was held on 20 September and the third meeting on 19 December. The ad hoc carrier technical group was formed as a spin-off of the carriers WG, and held its first meeting on 6 November, focusing on the technical elements needed for the implementation of the web services of EES and ETIAS.

At the same time, eu-LISA is performing several activities necessary for developing the full package of the technical specifications covering the forecast evolution of the EES/ETIAS web services, in order to launch the relevant work package under the existing EES implementation framework contract.

All these activities will generate input that will be used to finalise the EES/ETIAS web services technical specifications.

## Interface with the Common Repository for Reporting and Statistics

EES has to produce reports and statistics for the Member States according to the requirements set in Article 63 of the EES regulation. In parallel, an interoperability-oriented wider initiative for the creation of a common reporting and statistics repository of all eu-LISA systems is ongoing and a technical study was delivered in December 2019 (see the interoperability section, page 38). The study defines the technical specifications and proposes a budget and a schedule for the interface of eu-LISA information systems with the common repository, including EES. Based on the specifications, a project as part of the EES framework contract will be launched in Q2 2020 to create the EES interface with the repository.

## VIS-EES interoperability

In line with the indicative planning, eu-LISA started working on the VIS-EES interoperability. The Agency, in cooperation with the VIS contractor, assessed the impact of the EES regulation on VIS. The definition of the functional specifications was initiated in April 2019 and Member States were requested to participate in the ICD review. In order to ensure timely progress, three Change Management Group meetings were organised, in April, May and June 2019. The document was formally endorsed by the VIS component of the SIS/VIS Committee in September 2019 and delivered to the Member States by the end of the same month. In order not

<sup>24</sup> The evaluation of the offers started in January 2020, an award decision was made in March and a framework contract was signed in April 2020.

to impact the sBMS tender procedure, the BMS-related changes will be addressed as soon as the sBMS contract is in place.

## Network (including the VIS communication infrastructure)

The network project is conducted in three phases: the first phase entails a feasibility study to determine the technical and financial feasibility of the upgrade and the second phase entails the testing of the newly developed technical elements in a sandbox environment and with pilot Member States. The third phase consists in a roll-out of the necessary changes to the existing VIS communication infrastructure to accommodate the EES.

The first phase of the project was completed successfully. The second and third phases are ongoing and on track. The update of the VIS communication infrastructure is covered in further detail in the Infrastructure and Networks section (see page 40).

## **ETIAS**

With the entry into force of the ETIAS Regulation, eu-LISA proceeded with its implementation, starting with the necessary governance structures and the organisation of the work on the system's development.

During the first half of 2019, the Agency established the necessary ETIAS governance bodies. On 1 February 2019, the ETIAS Programme Management Board (PMB) convened in Strasbourg for the first of its monthly meetings. As per the ETIAS regulation, the remit of the EES Advisory Group was extended to cover ETIAS, and the first meeting of the combined EES-ETIAS AG took place on 13-14 March at the Agency's headquarters in Tallinn. In parallel, dedicated trilateral technical meetings were organised between eu-LISA, Frontex and Europol to ensure effective technical cooperation and coordination between the three Agencies.

Work on the development and implementation of ETIAS has been structured into a programme with three distinct phases:

- i. The preparation phase began in 2018 and is scheduled to last until the end of Q2 2020, with the validation of the technical tender specifications (TTS) currently being drafted by the Agency.
- ii. The procurement phase started in Q<sub>3</sub> 2019 with the setup of the transversal engineering framework procurement procedure, and will end with the signature of contracts and the start of the design and development of the ETIAS in Q<sub>3</sub> 2020.
- iii. The implementation phase will comprise three main tracks: firstly, the detailed requirements analysis and design of ETIAS; secondly, its development; and thirdly, system testing and entry into operation.

The preparation phase is currently ongoing and comprises four parallel work streams: recruitment, legal, technical and transversal procurement.

## Recruitment work stream

As part of its staff recruitment effort, the Agency has identified suitable profiles for the preparation, implementation and operation of the ETIAS on the basis of a capability gap assessment. The identified profiles have been grouped in order to speed up the recruitment process and are aligned with the Agency's new organisational structure. As of the end of 2019, 10 positions out of 19 have been filled.

## Legal work stream

The Agency has been supporting the European Commission and Member States in the framework of the Smart Borders Committee and Expert Group meetings with the preparation of the relevant legal acts necessary for the drafting of the ETIAS TTS. Together with the ETIAS consequential amendments, stable versions of the legal acts are necessary for finalising the TTS. Six implementing acts and six delegated acts are considered stable. In

parallel, there was limited progress on the Implementing Act for the encryption of the ETIAS watchlist. Four Implementing and Delegated Acts stemming from the Interoperability Regulations have been identified as having an impact on ETIAS. As a consequence, work on these acts has been prioritised as part of the Smart Borders (Interoperability format) Committee and the timeline for their stabilisation aligned (estimated Q1 2020). The impact assessment of the ETIAS consequential amendments was started at the end of October. As of the end of 2019, the consequential amendments are still pending adoption. Notwithstanding, for both EES and ETIAS, the Agency anticipated and already took into account the requirements indicated in the documentation. In addition, eu-LISA is actively supporting the Commission with the drafting of the Carriers Implementing Regulation as part of ETIAS development.

#### Technical work stream

In the technical work stream, the Agency continued to prepare the TTS. A remediation plan was defined to increase the quality and completeness of the TTS after a number of concerns were raised. Additional expertise has been used to cover the identified gaps and the remaining ETIAS TTS preparatory activities until the end of Q2 2020. The ETIAS Programme Management Board has been empowered to review the ETIAS TTS and validate the linkage between articles in the ETIAS regulation and coverage in relevant sections of the ETIAS TTS documentation. The Agency prepared and presented the ETIAS architecture overview as part of the TTS documentation.

The Agency prepared the testing strategy for ETIAS and addressed it at the AG level. The aim is twofold: from a planning perspective, to fine-tune all associated activities, especially those involving MS and Agencies; from a coverage perspective, to ensure that the EiO preparations are properly covered. The latter also covers the business end-to-end testing where the Agency shared numerous testing scenarios with the AG members. It is expected that the MS, Frontex and Europol will provide timely feedback to allow completion of the activity by the end of 2020. This activity will also help the MS redesign their business processes by business area (visa, immigration, law enforcement and border) and test them together with the new national ICT solutions before the EiO of ETIAS. It will also help them undertake capacity building and train their end users accordingly, before the ETIAS EiO.

#### Transversal procurement

Transversal procurement, the fourth work stream, has been introduced in the preparation phase and complements the initial scope of the ETIAS preparation activities to address the challenges from a growing, interoperable system landscape and to adapt to eu-LISA's new transversal organisation. Its objective is to set up a contractual shell for the design, development, testing and implementation of new systems, starting with the ETIAS. Following this decision, the preparation of the specifications and call for tenders for the transversal engineering framework (TEF) was launched in January 2020.<sup>25</sup> It is expected to be completed by the beginning of July 2020, with the award of the contracts for each of the TEF lots: design, coordination, quality assurance and integration support (lot 1); development (lot 2); infrastructure - hardware, software, related services (lot 3); testing and qualification (lot 4).

#### **ECRIS-TCN**

On 11 June 2019, the Regulation establishing a centralised system for the identification of Member States holding conviction information on third-country nationals and stateless persons (ECRIS-TCN) entered into force. According to this regulation, eu-LISA is responsible for the development and the operational management of ECRIS-TCN, which is the first large-scale IT system to be designed and developed by eu-LISA that primarily serves justice purposes. In this regard, this project is the first formal engagement of the Agency with the EU justice community and new stakeholders

<sup>25</sup> The procedure was launched on 29 January 2020.

for the Agency, such as DG JUST and the European Public Prosecutor's Office. In a similar way to what has been done in the context of developing other new systems, eu-LISA started work for ECRIS-TCN in three work streams: the preparation of procurement, the recruitment of new staff, and support for the preparation of implementing acts and the delegated act. In terms of recruitment, one contract agent joined the ECRIS-TCN team in 2019 and four additional contract agents will be recruited in 2020. As part of the legal work stream, eu-LISA worked in close cooperation with the Commission (DG JUST) and the Member States on the preparation of the necessary IAs and DAs. In addition, the Agency provided its support to the ECRIS-TCN Committee and Expert Group meetings. The Agency also started to prepare for the handover of the ECRIS Reference Implementation (RI) from DG JUST. Once this is finalised, eu-LISA will be in charge of the maintenance of ECRIS RI and of its further development. In January 2020, preparations were being made to organise the first ECRIS-TCN AG and PMB meetings.

#### 1.1.4 Interoperability

Regulation (EU) 2019/817 on establishing a framework for interoperability between EU information systems in the field of borders and visa and Regulation (EU) 2019/818 on establishing a framework for interoperability between EU information systems in the field of police and judicial cooperation, asylum and migration entered into force on 11 June 2019.

Following the entry into force of the regulations, the Agency took the necessary action to implement the interoperability architecture as a programme with three distinct phases.

- i. The preparation phase began immediately after adoption of the interoperability regulations. It is scheduled to last until the end of Q2 2020 with the validation of the technical tender specifications.
- ii. The procurement phase started in parallel in Q<sub>3</sub> 2019 with the setup of the transversal engineering framework procurement procedure and will end with the signature of contracts and the launch of the design and development of the interoperability components in Q<sub>3</sub> 2020.
- iii. The implementation phase will comprise three main tracks: (1) the detailed requirements analysis and design of interoperability components, (2) their development and (3) their implementation and integration with large-scale IT systems.

At the end of 2019, the preparation phase was ongoing and consisted of four parallel work streams: recruitment, legal, technical and transversal procurement. Their status at the end of 2019 is outlined below.

To facilitate the integration of existing and new large-scale IT systems into the new interoperability architecture, the Agency completed the feasibility study on the 'Elaboration of a future architectural framework for interoperable IT systems at eu-LISA: impact assessment and migration and integration plan'. Its results were incorporated into the requirements for separate interoperability components.

As well the required governance bodies, eu-LISA established: the Interoperability Programme Management Board (IO PMB) and the Interoperability Advisory Group (IO AG) to oversee and coordinate the implementation activities. The first IO PMB meeting took place at the end of October 2019. The first IO AG meeting took place in January 2020.

#### Recruitment work stream

As of the end of 2019, 11 positions out of 27 have been filled.

#### Legal work stream

The Agency has been supporting the European Commission and Member States with the preparation of the relevant legal acts as part of the Interoperability Committee and Expert Group meetings. The Commission, together with the Agency, identified the implementing and delegated acts required as priorities in order to launch the necessary procurement activities in line with the implementation timeline. As a result, it was decided to produce six acts before the end of 2019, five more in the first half of 2020 and two in the first quarter of 2021. The acts pertaining to the entry into operation will be produced once there is clear information that the

respective system can enter into production. Two acts extending the transitional period for the ESP and MID, respectively, will be produced only if needed.

As planned, by the end of 2019, six acts had reached a stable form following discussion in the Interoperability Expert Group and Comitology Committee, where a general consensus was reached. The acts are the following:

- Delegated act laying down detailed rules on the operation of the CRRS.
- Delegated act laying down the procedures to determine the cases in which identity data can be considered to be the same or similar.
- Implementing act on the procedure for the ESP to query the information systems and the format of replies.
- Implementing act on the technical details of the ESP profiles.
- Implementing act on the performance monitoring of the shared biometric matching service and implementing act on the technical rules for linking data from different information systems.

#### Technical work stream

The objective of this work stream is to prepare the technical tender specifications for interoperability components. The progress on each of these is shown below.

#### European Search Portal (ESP)

At the end of 2019, the tender technical specifications for ESP were under preparation. According to the Agency's planning, they will be finalised by the end of June 2020. After their review by the Management Board, in accordance with Article 54 of Regulation (EU) 2019/818, development is expected to start in the second half of 2020.

#### Shared Biometric Matching Service (sBMS)

At the end of 2019, the procurement procedure for the sBMS development was still in progress. <sup>26</sup> The development of the sBMS will be done in parallel with the development of EES, thus saving a substantial amount of time and effort.

#### Central Repository for Reporting and Statistics (CRRS)

At the end of 2019, the tender technical specifications for CRRS were under development. They are based on a feasibility study about a 'core business systems unified reporting solution'. It was delivered at the end of 2019 and defines the architecture of the technical solution on which CRRS will be based. It will provide a comprehensive tool set for statistical reporting and analytics.

At the time of preparation of this report, a review of the technical specifications in accordance with Article 54 of Regulation (EU) 2019/818 was in progress. The development of CRRS is expected to start in the second half of 2020.

#### Common Identity Repository (CIR)

At the end of 2019, the tender technical specifications for CIR were under preparation. According to the Agency's planning, these will be finalised by the end of June 2020. After their review by the Management Board, in accordance with Article 54 of Regulation (EU) 2019/818, the development of CIR is expected to start in the second half of 2020.

#### Multiple-Identity Detector (MID)

At the end of 2019, the tender technical specifications for MID were under preparation. According to the Agency's planning, these will be finalised by the end of June 2020. After their review by the Management Board,

<sup>26</sup> It was finalised in April 2020 and the execution of the awarded contract was initiated in May.

in accordance with Article 54 of Regulation (EU) 2019/818, the development of MID is expected to start in the second half of 2020.

#### 1.1.5 Infrastructure and networks

#### Operational management of the communication infrastructure

During the reporting period, the SIS and VIS communication infrastructure using the TESTA-ng services framework contract performed in accordance with the legal and operational requirements. The performance of the communication infrastructure exceeded its green target (KPI 5). The VIS communication infrastructure had an overall availability of 99.995 % while the SIS communication infrastructure had an overall availability of 99.995 %.

The SIS II second encryption layer ensured the security of the SIS II and SireneMail business data and reached an availability of 100 % during the reporting period.

To enhance the operational management of the communication infrastructure, a system capable of measuring network statistics has been successfully deployed in CU (in both production and pre-production environments). It allows the Agency to report and better analyse various areas of the network traffic. It also improves the capabilities of the Agency during troubleshooting activities.

#### Contractual aspects of the communication infrastructure networks

During the reporting period, the handover of the tasks relating to the implementation of the budget, acquisition and renewal and contractual matters of the SIS and VIS communication infrastructure was completed. The handover from the Commission to the Agency started in 2018 and the activity was successfully completed in March 2019 with the last budgetary transfer of the SIS line.

Once the handover was completed, the contracts for the maintenance and operation of the SIS and VIS communication infrastructure were executed, while new contracts to increase the network bandwidth have been negotiated and initiated. Bandwidth upgrades are required to accommodate the EES and ETIAS systems on the VIS communication infrastructure. Bandwidth upgrades on the SIS communication infrastructure are required to accommodate the AFIS features of the SIS II system.

The renewal of the EuroDomain contracts in CU and BCU, for the Eurodac application, have been successfully executed.

Finally, the Agency helped prepare the renewal of the TESTA framework contract, led by the Commission (DG DIGIT) as the owner of the contract.

#### Evolution of the communication infrastructure

The evolution of the communication infrastructure was executed in several areas during the reporting period.

### Upgrade of the VIS communication infrastructure

A feasibility study on the upgrade of the VIS communication infrastructure to satisfy additional bandwidth needs for EES and ETIAS was started in March 2019 and finalised in June. In July, the inception phase of the upgrade started. The upgrade will be achieved through a combination of line upgrades and replacement of the turnkey access points (TAPs) by new models at the sites where a line upgrade alone would not be sufficient. A survey of the situation in the MS was carried out during Q3 2019, including whether new equipment would be required for the line upgrades. The sandbox deployment of the new TAPs started in December 2019, following two pilot deployments. By the end of the upgrade in July 2020, the VIS communication infrastructure will have a capacity almost seven times higher than before and will be ready to support the entry into operation of EES and ETIAS.

#### Upgrade of the SIS communication infrastructure

The upgrade of TESTA-ng SIS communications infrastructure started in 2018 and continued during the reporting period. The primary sites for Switzerland, Poland and Portugal had already been upgraded to 100 Mbps in 2018. For the primary

sites of Austria, Germany and the Netherlands, the upgrades were done in 2019. Following completion of this first step, the overall upgrade of the remaining MS to accommodate SIS II AFIS requirements was initiated. The central SIS II CU and BCU TAPs and lines have been upgraded from 1 Gbps to 2 Gbps. Sandbox testing of the model 2 TAP, to be deployed in the MS, was successfully completed. The model 2 TAP was then deployed at two MS for further testing, and was subsequently accepted for further deployment with all MS. Starting in November 2019, upgrades have been deployed at three sites per month. The Commission and eu-LISA opted for a slow pace for budgetary reasons. The contract provides for all MS to have an initial upgrade to 50 Mbps, with the possibility of extension to 100 Mbps at a later stage, depending on the needs. When the upgrade is completed, all MS will increase their bandwidth from 10 Mbps to 50 Mbps with an option to upgrade to 100 Mbps.

#### Upgrade of the EuroDomain communication infrastructure

The Eurodac application uses the EuroDomain communication infrastructure to ensure connectivity between the Eurodac central system and national systems. Tasks relating to EuroDomain budget implementation and contractual matters are the competence of the Commission (DG DIGIT) but budget implementation and contractual matters for the EuroDomain TAPs in CU and BCU are managed by the Agency. The upgrade of the EuroDomain CU and BCU TAPs has been postponed until the Recast Eurodac regulation is approved. The Eurodac bandwidth upgrade would only be required if the Recast Eurodac regulation requires a network upgrade.

#### Second encryption layer evolution

While the SIS communication infrastructure has a second encryption layer to ensure that a third party cannot have access to clear-text data, the VIS communication infrastructure has no second encryption layer. During the reporting period, a second encryption layer pilot on the VIS communication infrastructure was carried out. The pilot was successfully conducted by implementing the solution for three MS on the pre-production network.

However a full roll-out of the VIS second encryption layer to all MS was put on hold. The second encryption layers of the VIS and EES need to coexist since they use the same communication infrastructure, while at the same time they need to adhere to the requirements of the legal provisions (i.e. logical separation of data). Therefore more clarity on the design of the EES second encryption layer is required before rolling out the VIS second encryption layer to all MS, to avoid the risk of additional cost and unavailability if both second encryption layer solutions are not designed in parallel.

#### **UWAN** evolutions

A proof of concept project, which started in 2017, was carried out to prepare the requirements for a unified wide area network (UWAN) for the large-scale IT systems entrusted to the Agency. The second phase of the work, carried out in 2018, led to the recommendation to test SD-WAN (software-defined wide-area network) solutions. The scope of the final phase, concluded in May 2019, was to test the identified solutions. The output of the study showed that the solutions could be compatible with the Agency's needs. The outcome of the study will be used for future development of, and improvements to, the WAN for the large-scale IT systems.

The unified wide area network perimeter study was planned to start in 2019. The objective of this study is to improve the way the large-scale IT systems are connected to the communication infrastructure, with a particular focus on security, scalability, flexibility, availability and throughput. The study was postponed until the baseline of the EES is known with regard to perimeter design. This baseline will then be used to align with other existing systems.

#### Common shared infrastructure

To improve the infrastructure lifecycle management, the Agency is running a common shared infrastructure (CSI) programme. The aims of the programme are to centralise and simplify technical services and to maintain and further develop a common infrastructure used by the large-scale IT systems entrusted to the Agency, in accordance with the provisions of the legal instruments.

During the reporting period, the Agency ensured the operational management and daily operation of the infrastructure of the systems by incident management, request fulfilment, problem management, and change and release

deployment. The operational management and daily operation of the infrastructure were also carried out at the backup site in St Johann im Pongau.

In 2019, one of the most important artefacts created within the CSI programme was the finalisation of a harmonised 'technology standard and technology portfolio catalogue', which provides the core foundation for the common shared infrastructure, and in particular for interoperability. Based on the standard, several technical services have been developed: 'Storage-as-a-Service' was completed, while 'Database-as-a-service' and 'Backup-as-a-service' were started.

As part of the CSI programme, the 'Testing Infrastructure' project has implemented a large part of its scope during 2019, including a full testing suite that has been deployed and has been available since November 2019. The testing suite comprises a complete set of integrated tools that can support the eu-LISA test process end-to-end, from requirements management to test planning, design, execution and reporting. The project will continue at the beginning of 2020 in order to complete its scope and implement additional modules that will offer almost real-time observability of an application and its infrastructure during performance and stress testing.

Another project in the CSI programme was the building of technical common shared infrastructure platforms in different environments that will be used in the future to migrate the existing systems. The new applications will be hosted on this newly built CSI environment.

#### 1.1.6 Security

Security is a core element of all activities undertaken in an IT-focused organisation such as eu-LISA, not only for legal reasons but also given its role as a centre of excellence in the provision of IT services, including the security of systems and information.

During 2019, the Agency's security function continued to maintain and upgrade measures concerning physical and personnel security to create a safe and secure working environment, in particular with regard to its premises and their accesses.

KPI 1 represents the number of identified critical shortcomings during security tests, with a target of zero. The 2019 value of KPI 1 is one. During security testing, the Agency identified one category of vulnerabilities that were treated in accordance with the risk management process. KPI 2 is the percentage of identified security risks treated by assured controls, and its 2019 value was 90 %. The security function is implementing further corrective actions to manage the effective exposure of the systems to the 10 % remaining classes of vulnerabilities.

As a core element of its information security management framework, the Agency established, operated and continuously developed its Information Security Management System in compliance with the relevant standards and international best practice. The security policies and procedures were further developed and improved, incorporating the relevant policies of the European Commission, in particular with regard to the protection of sensitive classified and non-classified information, in line with Regulation (EU) 2018/1726. As part of the development of the EES, relevant documentation was developed on the security and business continuity aspects of the system.

In line with the legal requirements, the Agency initiated a review and update of the security plans for SIS, VIS and Eurodac.

To ensure that the central systems of Eurodac, VIS and SIS continue to comply strictly with the requirements of their legal instruments in terms of data protection and security, the Agency continued to strengthen and upgrade the security framework and procedures for the organisation itself, the systems and the relevant communication networks. Continuous monitoring and management of the residual risks took place throughout the year to provide assurance that the appropriate security controls for the IT systems had been properly implemented and managed. All critical issues identified were treated by a combination of corrective actions and compensating controls. For VIS and SIS II, the Agency is on track to implement the recommendations coming from the 2017 and 2018 security exercises (Table 3).

	Completed	Partially completed	Not started	Not applicable
VIS exercise recommendations	36	28	5	_
SIS II exercise recommendations	24	30	7	1

Table 3: Implementation status of security exercises - recommendations

For Eurodac, a similar operational exercise took place in 2019 with the participation of eu-LISA and six Member States for the testing of security, business continuity, disaster recovery, incident management and other IT operations-related aspects. The exercise report will be presented for adoption to the Management Board in 2020. A multi-system security and business continuity exercise is planned for 2020.

In terms of information security, 2019 saw the introduction of a three-pronged approach to improving the security posture of the systems: 1) continued efforts to update and improve the Agency's security policy framework; 2) evolving the security risk management approach; and 3) consolidating the development of the technical security architecture.

In accordance with the Agency's technology strategy to consolidate the development of security controls at the CSI level, the Agency executed a number of projects, including the implementation of the Security Information and Event Management System (SIEM) and the new Public Key Infrastructure, which was initiated in 2019 and is planned to be completed in 2020. In 2019, the Agency also planned to implement an enhancement of the privileged access management capabilities as part of an identity and access management project. However, this project was not started because of the limited budget ceiling for the CSI contract. Instead, a common decision was taken to cancel the service request and look for an alternative way to deliver this project. As a solution, this service will be deployed and implemented within the EES implementation programme.

Further implementation of the specific controls of the Business Continuity Management System has been in line with planning. This includes the development of corporate business continuity procedures, implementing rules on business continuity and the implementation of recommendations from business continuity exercises.

Cooperation with the Member States and other EU agencies has been maintained at the level of exchange of knowledge and best practice through the biannual meeting of the Security Officers' Network. The group of experts, chaired by eu-LISA, addressed topics such as system security, data protection, incident management and the resilience of the current and upcoming large-scale IT systems. In preparing for the EES, the Security Officers' Network was involved in preparing recommendations for the security and business continuity plans to be used by the Member States as a baseline for their controls.

As part of the exchange of best practices, in May 2019 eu-LISA also hosted the Business Continuity Network, gathering business continuity experts from EU institutions and agencies. This forum targets solutions for enhancing the preparedness for disruptions through exercises, business continuity awareness, and training. Similarly, it examines new technologies that could support and enhance the resilience of EU agencies and institutions.

#### 1.1.7 Data protection

The Agency must ensure a high level of data protection in accordance with the EU data protection law and the specific provisions defined for each large-scale IT system (Article 2 of eu-LISA establishing regulation). Since December 2018, the Agency must follow Regulation (EU) 2018/1725,<sup>27</sup> which lays down rules on how EU agencies should treat personal data they hold on individuals, especially the right to protection of personal data and the right to privacy. This new

<sup>27</sup> Regulation (EU) 2018/1725 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, OJ L 295, 21.11.2018, pp. 39-98.

regulation aligned the rules for EU agencies with those of the General Data Protection Regulation (GDPR), which have been in force since May 2018.

The Agency planned and started the implementation of the new requirements and obligations stemming from this new regulation. Following the completion of a gap analysis, a number of actions were undertaken, starting with the preparation of new 'eu-LISA DPO Implementing Rules', which were subsequently adopted by the Management Board on 9 October. A summary of the main findings of this gap analysis and recommended actions were also presented during the Management Board meeting in November 2019.

The new data protection clauses were incorporated into new and existing contracts. The Agency developed new templates for records of data processing activities, for compliance checks, risk screenings, threshold assessments and data breaches. A comprehensive template was also prepared for Data Protection Impact Assessment (DPIA) reports. To raise awareness of the new regulation, the DPO organised information sessions for eu-LISA staff and on-site contractors and communicated regularly with the Agency via the various internal communications media. Individual coaching sessions were offered to staff requiring specific advice and guidance to comply with their obligations as data controllers under the new regulation. Templates and step-by-step instructions were prepared to support data controllers in documenting data processing operations. Similarly, a 'Data Breach To-Do List' was created. It explains in detail the steps and actions to follow should a data breach occur.

In addition to implementing the new regulation, the Agency decided to focus available resources on the provision of data protection guidance and support to the teams preparing the evolution of existing systems and the development of new systems. Another priority was the inspection of the Eurodac central system by the European Data Protection Supervisor (EDPS) during the second half of the year. As a result of the reprioritisation exercise, the planned data protection annual survey was put on hold.

The Management Board was regularly informed about the status of data protection compliance and activities in the Agency by means of interim reports presented in March by the – then – acting DPO, and in November by the newly appointed DPO. The DPO is required to prepare and submit to the Management Board an annual report on eu-LISA's compliance with the applicable data protection regulations. The DPO Annual Work Report 2018 illustrates the work performed by the DPO during that year. Exceptionally, due to the resignation of the former DPO, this report was completed and presented to the Management Board before the end of 2018. It was subsequently published on the Agency's website.

In January 2019, the acting DPO organised an awareness session to celebrate Data Protection Day. This session gave all Agency staff an overview of data subjects' rights, records of processing activities, data protection impact assessments, data breaches and the role of the Data Protection Officer and the European Data Protection Supervisor.

On 24 May, a new training session was organised on video surveillance and data protection-related aspects. The eu-LISA DPO also promoted training sessions organised by EDPS that were open to all Agency staff. Four training sessions took place for Heads of Unit/Heads of Sector in 2019.

In addition, data protection information is shared in the Agency's weekly internal newsletter, which is sent to all staff and on-site contractors. The weekly newsletter includes a dedicated section on data protection that the DPO prepares. The purpose of this section is to update staff on the latest guidelines, available training sessions and recent developments in the field.

#### 1.1.8 Reporting and statistics

eu-LISA prepared and published several reports on Eurodac, SIS II and VIS in 2019, in accordance with their respective legal instruments. For each published report, the Agency prepared a factsheet illustrating the main facts and figures, to

increase the transparency and visibility of the systems' utilisation. Reports and factsheets are publicly available on the Agency's website.<sup>28</sup>

#### Eurodac - 2018 statistics29

The 'Eurodac – 2018 statistics' report was submitted in March 2019 to the EU institutions and published on the Agency's website. The Eurodac AG adopted the report beforehand. This report presents statistical data on the work of the Eurodac central system, specifically the number of datasets transmitted and the number of hits, broken down by category and by Member States and associated countries.

#### Annual report on the activities of Eurodac's central system, including its technical functioning and security30

This report was submitted to the EU institutions in June 2019 and was published on the Agency's website following its adoption by the MB on 14 June. The report provides an insight into the system's main developments and an overview of annual statistics, in line with previous years.

#### Updated list of designated authorities that have access to data recorded in Eurodac's central system<sup>31</sup>

The document was adopted by the MB on 17 April and was then published on the Agency's website.

#### SIS II - 2018 statistics32

The 'SIS II – 2018 statistics' report was submitted to the EU institutions in March 2019 and published on the Agency's website. The SIS AG adopted the report beforehand. This report presents SIS II statistics on the number of records per category of alert, the number of hits per category of alert and how often SIS II was accessed.

#### Third report on the technical functioning of the central SIS II and its communication infrastructure<sup>33</sup>

The report was adopted by the MB on 24 October. It was subsequently submitted to the EU institutions and published on the Agency's website. The report covers the period from 1 January 2017 to 31 December 2018 and describes the activities carried out to ensure the operational management of the SIS II central system, including its security, together with the statistics collected annually.

# Updated list of competent authorities for the SIS II, updated list of National SIS II Offices and national Sirene Bureaux

Both documents were published in the Official Journal of the European Union, C 222, 2 July 2019.

#### Fourth report on the technical functioning of VIS

Towards the end of the year, the Agency started preparing the new report, covering the period from October 2017 to September 2019.

#### 1.1.9 Training for Member States

During the reporting period, eu-LISA started the delivery of the planned 2019 training activities. Twenty-five training courses varying in scope and format were delivered. Face-to-face sessions represent the majority of eu-LISA training courses (64 %), followed by webinars (36 %) and e-learning courses. The majority of courses were delivered on SIS (60 %), followed by VIS (12 %), Eurodac (12 %) and horizontal training courses (12 %).

The second cycle of the VIS development training programme for IT operators continued with the delivery of an intermediate level (L2) training session on 6 March in Strasbourg. The aim of the course was to introduce the VIS operational system principles and technical aspects and to provide a detailed overview of the operations to the target audience of Single Point of Contact (SPoC) managers and senior operational staff. The VIS development training

<sup>28</sup> https://eulisa.europa.eu/our-publications/reports.

<sup>29</sup> https://www.eulisa.europa.eu/Publications/Reports/Eurodac%20-%202018%20statistics%20-%20report.pdf.

https://www.eulisa.europa.eu/Publications/Reports/2018%20Eurodac%20Annual%20Report.pdf.

<sup>1</sup> https://www.eulisa.europa.eu/Publications/Reports/2019%20Eurodac%2oupdated%20list%20of%2oauthorities%20-%20asylum.pdf.

<sup>32</sup> https://www.eulisa.europa.eu/Publications/Reports/SIS%202018%20statistics.pdf.

 $<sup>33 \</sup>qquad https://www.eulisa.europa.eu/Publications/Reports/Central\%20SIS\%20II\%20Report\%20technical\%20functioning\%202017-2018.pdf. \\$ 

programme for IT operators finished with an advanced level (L<sub>3</sub>) training session, which was held in Tallinn on 3-4 April. Training sessions were also organised for VIS newcomers from Bulgaria, Romania, Croatia and Europol.

The Eurodac development training programme for IT operators 2019 started with the delivery of entry level (L1) training on 9 April in Strasbourg, introducing the Eurodac operational system principles, technical aspects and providing an overview of its operations. The intermediate level (L2) training was held on 6 May in Strasbourg and provided a comprehensive overview of SPoC channels of communication with the eu-LISA Service Desk; it introduced related best practices in exercising SPoC's responsibilities and gave an overview of the roles of the respective entities. The advanced level (L3) training took place on 12 June 2019 in Tallinn, aimed at improving the general usage of the Eurodac system by providing the latest and most detailed information and experience on Eurodac technical/business topics.

In the SIS context, a series of webinars dealing with updated statistics and the results of data consistency checks for countries undergoing Schengen evaluations was delivered during the year. A SIS II SPoC profile course was delivered on 4-5 June in Strasbourg and was designed to provide a comprehensive explanation of the operational concepts that are necessary to perform the role of SPoC at national level in day-to-day tasks. A group of courses on SIS II for SIRENE (the business-oriented course delivered jointly with CEPOL and the technical course) was also delivered. Finally, on SIS, a series of newcomer programmes for Ireland, Frontex, and Europol was also delivered during the year.

In e-learning, eu-LISA made strides in strengthening its learning management system and the e-learning component of the eu-LISA training portfolio. Twelve e-courses were developed and 11 e-courses were updated. The development and implementation of a fully self-directed e-learning module, SIS & SIRENE Essentials, was an important milestone.

In 2019, the Agency continued its fruitful cooperation with the Member States through the activities of the Network of National Contact Points, the European Commission and partners from EU JHA Agencies (in particular CEPOL, Frontex and Europol). The delivery of joint training sessions was continued in 2019, mainly in partnership with CEPOL and Frontex. As part of eu-LISA's involvement with EMPACT,<sup>34</sup> the Agency organised an awareness-raising session on the relevant roles of Eurodac and SIS II. eu-LISA also participated in the work of the Training Contact Group of the JHA Agencies coordinating the definition and management of the future Interoperability training sessions. Proposed actions will be followed up during 2020.

Finally, in the EES context, the Agency continued with its preparations for training Member States, in particular working towards the design of a pre-deployment training scheme on the technical use of the EES. A training needs analysis exercise, focusing on a definition of target audiences, training topics and expected outcomes of training was completed in March 2019. Following this, the EES target groups were specified and relevant training curricula designed. Initial steps in the development of ETIAS curricula also started during 2019. The first online training session on EES was delivered in December 2019, focusing on high-level architecture and an implementation roadmap.

#### 1.1.10 Research and technology monitoring

In line with its establishing regulation, the Agency performed research and technology monitoring activities throughout 2019. In addition to the publication of its research and technology monitoring report, the Agency continued work on the definition of the roadmap, including the development of a methodology for defining priorities for research and technology monitoring.

The research and technology monitoring function continued to explore relevant developments in research and technology throughout 2019, in accordance with the mandate. Some of the priorities for research and technology monitoring were carried over from previous years due to their continuing relevance, such as biometrics, distributed ledger technologies, new architecture and artificial intelligence.

<sup>34</sup> European multidisciplinary platform against criminal threats.

The key output of the research and technology monitoring activities for 2019 was the publication of the report 'Distributed Ledger Technologies and Blockchain for Large-Scale IT. Perspectives for eu-LISA' in December.<sup>35</sup> Although the report was initiated in 2018, most of the work, including data gathering, analysis and drafting, was performed in 2019.

A considerable number of activities were also carried out on artificial intelligence (AI), due to its increasing relevance in Justice and Home Affairs. In particular, the Agency presented a high-level concept paper 'Artificial Intelligence in the Operational Management of Large-Scale IT Systems. Perspectives for eu-LISA' at the Standing Committee on Operational Cooperation on Internal Security (COSI) meeting in November 2019.

In addition, a research and technology monitoring report on AI in the operational management of large-scale IT systems was started in Q4 2019, with the aim of publishing it in Q2 2020. The work on the report was performed while also supporting a dedicated study led by DG HOME on AI in the areas of border, migration and security. The Agency contributed to the aforementioned study by participating in discussions, providing input regarding relevant use-cases, as well as reviewing deliverables. Moreover, since spring 2019, the Agency supported the discussion on AI for security and law enforcement in a series of workshops coordinated by DG HOME.

Another important line of activity was informing eu-LISA stakeholders about the developments in technology, as well as ensuring the effective information exchange necessary for capability-building. To this end, the research and technology monitoring function contributed to a number of events aimed at relevant stakeholders, including:

- Two industry roundtable events, the first being held in Bucharest with the support of the Romanian Presidency of the Council of the EU and the second in Tallinn.
- The Agency's annual conference, held in Tallinn under the auspices of the Finnish Presidency of the Council of the EU.

In addition, the research and technology monitoring function contributed to a number of events organised by eu-LISA stakeholders, including: the Border Security Conference held in Milan in February 2019; the European Police Congress held in Berlin in February 2019; the Passenger Terminal Conference held in London in March 2019; the Connect:ID Conference held in Washington, D.C. in April 2019; the Identity Week Planet Biometrics event held in London in June 2019; and the International Summit on Borders held in Washington, D.C. in June 2019.

The scope of the research mandate was expanded significantly with the adoption of the revised eu-LISA establishing regulation in November 2018. The new mandate, in addition to technology monitoring, includes responsibility for the implementation of parts of the EU Framework Programme (FP) for Research and Innovation. The Agency has initiated a dialogue with the Commission's unit (DG HOME) responsible for the coordination of the respective part of the EU FP. The dialogue will continue in 2020 with the aim of exploring initial opportunities for the Agency to engage with the relevant projects and of considering how to contribute to the definition of future thematic priorities.

Those discussions will be carried out at the same time as the elaboration of the Agency's new strategic vision of research and innovation in the course of 2020 in line with the extended mandate and stakeholders' expectations.

# 1.2 Strategic goal 2

#### MAINTAIN AND EXTEND THE ROLE OF THE AGENCY AS AN EU ICT CENTRE OF EXCELLENCE AND SERVICE PROVIDER

#### 1.2.1 Enterprise Project Management

Article 2(a) of eu-LISA's establishing regulation provides that eu-LISA shall ensure 'the development of large-scale IT systems using an adequate project management structure for efficiently developing such systems'. eu-LISA's Enterprise

 $<sup>35 \</sup>qquad https://www.eulisa.europa.eu/Publications/Reports/DLTs\%20\%20blockchain\%20report.\%20Dec\%202019.\%20Key\%20findings.pdf. and the properties of the proper$ 

project management office (EPMO) was established in 2017. Its mission is to integrate and monitor all projects undertaken by the Agency, and to contribute to its internal governance to ensure transparency and accountability.

In 2019, the EPMO continued the implementation of its roadmap, addressing several key areas and strengthening internal controls on the implementation of the Agency's project management methodology.

#### Intake List

In 2019, the Agency formalised its approach for the intake process for new projects. Following the Executive Director (ED) Decision to adopt an 'Intake List' of projects, an initial list of projects to be implemented by eu-LISA in 2019 was established. The baseline Intake List was approved by the end of April 2019.

The Intake List ensures that each project is linked to a proper financing decision. Amendments to the Intake List are only possible with the approval of the Corporate Steering Committee.

#### Corporate Steering Committee

The Corporate Steering Committee (CSC) was established on 17 October by an ED Decision in place of the Programme Steering Committee (PSC). The remit of the CSC is the governance of portfolios, programmes and projects, whereas the PSC ensured steering and oversight of eu-LISA's programmes and projects.

#### Progress reports on development programmes

During the reporting period, the Agency prepared reports on the state of play of the development of new systems, as required by the respective legal instruments. These reports are prepared every six months and are sent to the European Parliament and the Council. The Agency also drafted the monthly reports used by the PMBs to report on the progress of the respective development programmes to the MB.

#### Project management

Project performance is followed up on a regular basis through the analysis of the dashboards and the 'end of project report' presentation required from the project managers at project closure.

Project compliance checks are organised yearly as part of the Agency's effort continuously to monitor the compliance of its activities with the established project management methodology. Following the compliance check performed at the end of 2018 on the project management products, improvement actions have been put in place, one of them being coaching and awareness sessions on the Enterprise Project Management tool.

The 2019 compliance check started in November. The projects compliance check was performed based on the project information available in the enterprise project management tool, the 2019 intake list and list of financial actors. The scope of the check included both active and closed projects. The output data were aggregated and at the beginning of 2020 the results were presented together with an action plan.

#### Programme and portfolio management

The role of the EPMO is to provide and maintain an organisational project management environment at the enterprise level. In support of this objective, the Agency decided to create a project and portfolio management capability (PPM). Market research was carried out in 2019 to identify potential PPM solutions. As a result, 'Planview Enterprise One' was identified as the most suitable out-of-the box software solution to manage portfolios, programmes and interdependencies with other projects. The contract was signed in Q4 2019 and the implementation project started, with completion by the end of 2020.

#### Ex ante evaluations

eu-LISA Financial Rules state that all programmes and activities requiring significant expenditure are subject to an *ex* ante evaluation prior to their approval and inclusion in the Agency's Annual Work Programme. In 2019, the Agency's

EPMO, as an independent organisational entity, performed the *ex ante* evaluations. In addition, and in accordance with the *ex ante* policy established in 2017, the *ex ante* procedure was revised to introduce a two-step approach.

**Opportunity assessment (step 1)**: This assessment must be completed two years before the project start. The assessment covers the methodology documentation, the initial business justification and the supporting project documentation, when available.

**Feasibility assessment (step 2)**: This assessment must be completed one year before the project start. The assessment covers the key project methodology documentation, the final business case, evidence collected during interviews with key stakeholders and the supporting project documentation for large project proposals. The project category (small, medium, large) is determined in line with agreed classification criteria.

Following this new approach, two large projects identified for initiation in 2020 were subject to an *ex ante* feasibility assessment and 14 projects identified for initiation in 2021 qualified for an *ex ante* opportunity assessment. Two summary reports were presented to the Management Board in November 2019.

#### Audit of EES contractor

Following a workshop on quality assurance organised in August for the EES LIA consortium (Leonardo, IBM Belgium, Atos Belgium) representatives, the Agency identified the need for verification of the adequate application of project governance processes by the LIA consortium. A compliance check was therefore carried out by the EPMO in the third quarter of 2019 on work packages 1 and 2 of the EES implementation project, with the objective of verifying the fulfilment of contractual obligations related to three main transversal processes: project management, quality management and requirements management. The compliance check was based on evidence provided by the LIA consortium and led to the detection of 36 findings, 22 of which were classified as highly critical. The results were released in January 2020 and delivered to eu-LISA's internal stakeholders.

#### 1.2.2 ITSM framework maintenance and development

# ITSM framework and continued development towards a centre of excellence in ICT services and corporate governance

In order to further strengthen its operations in line with international best practice, the Agency continued the development of its service and process model based on the Information Technology Infrastructure Library (ITIL)/ITSM implementation. The eu-LISA ITSM Process Model, established in 2016, includes 12 processes already in place. The Agency maintained its service catalogue, reviewing and updating the existing services and defining new ones when needed, as part of the development of the new systems.

The ITSM phase 2 project was finalised in 2019 and successfully defined the following processes: Availability Management, Capacity Management, Knowledge Management and Continuous Service Improvement Management. These were gradually implemented during the year. Once implemented, they will significantly strengthen eu-LISA's Process Model, thus increasing the quality of the services provided. In parallel with the new process definitions and implementation, further automation and integration of the processes were carried out, aimed at increased control, greater efficiency and continuous improvement of service delivery.

The Continuous Service Improvement Management process is crucial for efficient quality management. It establishes the practical means of identifying improvements. The continuous service improvement (CSI) register was launched and went live by the end of 2019. It will be used to register all the improvement initiatives related to services and processes, the results of their assessment, their level of priority and the respective agreed outcomes. The eu-LISA Measurement Tree is another part of this process. It will guarantee that all the metrics and targets related to the Agency's goals and objectives are aligned and will facilitate the measurement and monitoring of achievements.

The Knowledge Management process is used to structure the knowledge artefacts of first-level support, second-level support and those of the Member States. The process was implemented in 2019 using the functionality of the Service

Manager tool. This will ensure the efficient re-use of existing knowledge and its gradual quality improvement. It will also minimise dependency on key personnel.

Necessary improvements to the integrated ITSM tool were introduced throughout 2019, addressing the new and updated process requirements. The tool was also updated to facilitate use by the Agency's contractors in order to ensure more efficient reporting of their performance, and in general to simplify everyday business.

Initially planned for 2019, the advanced reporting solution project and its integration between asset and configuration management were deprioritised and postponed to 2020.

#### 1.2.3 Vendor and contract management

In its long-term strategy, the Agency identified vendor and contract management capabilities as a particular area of development. This involves the implementation of a sourcing strategy offering the required agility and the continuous improvement of processes and tools. It also includes monitoring the efficiency of the Agency's operations and the optimisation of the total cost of ownership.

As part of the eu-LISA 2.0 transformation programme, a dedicated sector for vendor and contract management was created and took up its duties in October 2019. The first activities were aimed at rightsizing the sector and its tasks, and at defining the processes and interfaces with other key internal stakeholders within the new organisation. Recruitment for relevant staff was launched and should be completed by Q2 2020. The new team contributed to the definition of the tender technical specifications of the transversal engineering procurement (see ETIAS section on transversal procurement on page 37) and supported the operations department units on specific contract management topics.

#### 1.2.4 Enterprise architecture

In 2019, following the roll-out of the new eu-LISA 2.0 organisation, the Agency started preparing the first phase in the setting-up of an Enterprise Architecture.

An Enterprise Architecture (EA) definition document was prepared, describing the processes that will be established to define and develop the eu-LISA EA. The EA framework is described in the eu-LISA EA Governance Framework. It describes the integrated approach for the development of the EA and the common process components, and it promotes the reuse of system artefacts. It also includes a 'request for architecture' process. An EA evolution roadmap was prepared, starting from the foundation, through to improvement and enterprise continuum. It also includes the EA implementation approach (plan, build and run) and the EA benefits and success factors. In addition, a mandate for setting up an eu-LISA internal architecture review board was prepared.

The work on the EES and ETIAS architecture has progressed and the components listed for reuse and standardisation were identified and proposed and are awaiting a Management decision. The Agency is currently setting up an Architecture Review Board and one of its main activities will be to decide on standards and reused and shared components.

# 1.3 Strategic goal 3

#### CONTINUE GROWING AS THE PRINCIPAL EU ICT HUB

#### 1.3.1 Partnerships with the Member States and EU institutions

Throughout the year, eu-LISA provided substantial contributions to the discussions held at the relevant Council Working Parties and participated in discussions held during the Justice and Home Affairs Council meetings. In addition, the Agency worked very closely with the Romanian and Finnish Presidencies of the Council of the EU by providing its expertise when requested and participated in various conferences and workshops organised by the Council Presidencies.

The Agency's contribution to the preparation of the various committees, experts' meetings, workshops and high-level Forum organised by the European Commission has also been substantial, especially taking into account the fact that 2019 was the year in which the various legislative initiatives that entered into force in 2018 (e.g. recast SIS and ETIAS Regulation) were implemented.

The Agency worked closely with the Romanian and Finnish Presidencies of the Council of the EU by providing its expertise when requested. The Agency consolidated its role as an important advisor to the European Parliament on technical aspects directly linked with ongoing negotiations on different legislative proposals as part of the Agency's mandate, for example by providing its expertise to the co-legislators during technical tripartite discussions. eu-LISA also participated in, and contributed to, formal committee meetings, for example regular reporting on the progress made with the implementation of EES and ETIAS, and also, more informally, at the level of technical meetings with the rapporteurs and the shadow rapporteurs.

As part of the implementation of the recast SIS, EES, ETIAS and interoperability, the Agency continuously provided support to the European Commission and the Member States with the preparation of the implementing and delegated acts, supported complex technical discussions at operational and business level, and actively participated in the meetings of the Smart Borders Committee, Interoperability Committee, SIS-SIRENE Committee and all the respective Expert Subgroups.

The joint EES-ETIAS Advisory Group began its meetings on 13-14 March 2019. The ad hoc Working Group for ICT solutions for Member States with external land and sea borders concluded its activities with the adoption of recommendations on 26 March 2019. The Working Group was convened under the umbrella of the EES-ETIAS AG. It met five times between November 2018 and March 2019 with the objective of identifying a viable solution and a common architecture for the implementation of EES at the external land and sea borders. Following the completion of this Working Group's tasks, two other Working Groups were established under the umbrella of the EES-ETIAS Advisory Group, one for Carriers and one for Biometrics. The Working Group for Carriers aims to provide awareness to the carrier community concerning their obligations stemming from the EES and ETIAS Regulations as well as the Schengen Convention. It also monitors and discusses the status of carriers' level of preparation for the implementation of the aforementioned legislation, including any relevant operational/technical considerations. The first session of the Working Group took place on 4 June in Brussels and was followed by two more meetings on 20 September and 19 December. The Working Group on Biometrics provides a platform for technical discussions between eu-LISA, the European Commission and Member States' biometrics experts to share best practices and find appropriate technical solutions and standards for the respective biometric matching systems and the future overarching shared BMS. This working group held two meetings, on 15 October and 13 December.

The Eurodac, SIS and VIS AGs continuously provided platforms for Member States' experts and representatives of JHA Agencies and the European Commission, for exchanging technical expertise and support on various technical issues related to the evolution of these systems. The Agency continued its established practice of preparing summaries of the AG meetings and disseminating them to its stakeholders. Since July, the summaries are also published by the Council on the Delegates Portal. These summaries provide timely and relevant information on the functioning of the large-scale IT systems to Member States' representatives beyond the members of the AGs, and contribute to raising awareness on the essential work of the AGs.

The Agency continued supporting the Commission with the preparation of relevant presentations and participation in the meetings of the High-Level Forum on interoperability that took place on 5 March and 15 November in Brussels, as well as in the readiness study visits to Member States' capitals. In 2019, readiness study visits were organised to Denmark, Latvia, Lithuania, Cyprus, Malta, Romania, the Czech Republic, Slovakia, Portugal, Switzerland, Slovenia, and Croatia. The objective of these visits was to discuss the status of preparations and readiness at national level for the implementation of EES, ETIAS, recast SIS and interoperability.

In April, following the invitation of the Croatian authorities, eu-LISA and Frontex representatives participated in a field visit to Croatia at the Bajakovo and Tovarnik border crossing points (BCPs). The visit aimed to assess the current challenges faced by the BCPs, explore possible solutions to ease the workload and at the same time prepare for the new systems. The Bajakovo BCP is located on the main highway between Zagreb, Croatia, and Belgrade, Serbia, on the corridor connecting central Europe with the Western Balkans and South-East Europe. Over 6 million passengers and 2 million vehicles per year use this BCP. eu-LISA and Member States' representatives also went on a study visit to Washington, D.C., USA, between 3 and 8 November 2019. The aim of the visit was to learn from the experience of the US authorities with the implementation of systems similar to EES and ETIAS. Participants visited the Customs and Border Protection Authority in Washington, D.C., the sea border at Miami seaport and the air border at Washington's Dulles airport.

In line with the provisions of its legal basis and the expectations of its stakeholders, eu-LISA continued to contribute to the development and enhancement of the EU's internal security strategy. This included active participation in the ongoing discussions about the future of Prüm. The Agency participated in, and provided input to, the Prüm workshops organised by the European Commission in Brussels on 27 March, 25 June, and 12 December. eu-LISA also actively contributed to discussions about the revision of the Advanced Passenger Information (API) and Passenger Name Record (PNR) Directives through participation in, and follow-up of, the relevant Council Working Parties (DAPIX) as well as by following the proceedings of the 3rd OSCE-wide Seminar on Passenger Data Exchange and the Informal Working Group (IWG) on PNR meetings held on 18-19 June and 3-4 September.

The Agency continued its active engagement in three EMPACT priorities, namely 'Firearms', 'Attacks against information systems' and 'Facilitation of illegal immigration'. The Agency participated in several meetings, mainly on Firearms and the Facilitation of illegal immigration (e.g. annual kick-off meeting of EMPACT Firearms on 19-20 February, a Strategic meeting of the EMPACT Firearms on 19 July and the EMPACT Facilitation of illegal immigration – OAP drafting session on 11-12 September) and actively contributed to the relevant discussions. As part of the facilitating illegal immigration priority, eu-LISA contributed with an operational action by organising a training activity.

As an important element of stakeholder collaboration, eu-LISA's 6<sup>th</sup> Annual Conference 'The new information architecture as a driver for efficiency and effectiveness in internal security' was organised with the support and engagement of the Finnish Presidency of the Council of the EU. The conference focused on the future of internal security as well as opportunities presented by the new information architecture for law enforcement and border management communities (see also page 60 for more details on the annual conference).

Other stakeholder events with cooperation partners were held to present the Agency's mandate, highlight business processes and exchange views on the Agency's activities and plans. These events included in particular the meetings with the heads of diplomatic missions on 18 March in Tallinn, with the JHA counsellors on 2 April in Brussels and with the members of the Committee on Civil Liberties, Justice and Home Affairs (LIBE) on 18 September in Strasbourg and 29-30 October in Tallinn. On top of the planned visits and briefings, eu-LISA also held several high-level meetings, such as the meeting with the Director of the NATO Cooperative Cyber Defence Centre of Excellence, the Committee on the Civil Dimension of Security of the NATO Parliamentary Assembly, the General State Secretary of the Romanian Ministry of Internal Affairs, the Parliamentary State Secretary of the Federal Ministry of the Interior of Germany, the Minister of the Interior of Estonia, the delegation of the Estonian Parliament, the Director-General for Justice and Home Affairs of the General Secretariat of Council of the EU and the Minister of the Interior of Hungary.

#### Schengen evaluations

In 2019, eu-LISA participated in 10 Schengen evaluations:

- Six Schengen evaluations for SIS/SIRENE.
- Schengen evaluations for the Common Visa Policy including VIS.

 One unannounced Schengen evaluation for the Common Visa Policy including VIS targeting four Member States.

The Agency supported the Commission and the Member States in the SIS/SIRENE evaluation missions for the Czech Republic in March, the evaluation of Poland in April, the evaluation of Slovenia in June, the re-visit for the evaluation of France in June, the evaluation of Hungary in October, and the evaluation of Slovakia in November.

In relation to the Common Visa Policy including VIS evaluations, the Agency participated in the following evaluations:

- The evaluation of the Czech Republic in January carried out in Abu Dhabi and Chenqdu (China).
- The unannounced evaluations of Spain, the Netherlands, France, and Switzerland carried out in September in Morocco.
- The evaluation of Hungary carried out in Almaty (Kazakhstan) and Mumbai (India) in October.
- The evaluation of Slovakia carried out in Minsk (Belarus) and Istanbul (Turkey) in December 2019.

#### 1.3.2 Partnerships with other EU Agencies

Throughout 2019, close cooperation continued with partner agencies, in particular in the JHA community. Bilateral cooperation plans for the period of 2019-2021 were prepared with Europol and CEPOL. Draft cooperation plans for 2020-2022 were drawn up with FRA and EASO and will be concluded in 2020. The plans provide an overview of current bilateral cooperation and future initiatives.

Close cooperation at operational level was carried out with Europol and Frontex to ensure the implementation of the EES and ETIAS regulations, paving the way for the successful implementation of the interoperability regulations. Cooperation in the field of training has been launched with Frontex, Europol, CEPOL, and FRA to ensure the training of a wide range of stakeholders at national level. Other Agencies will be involved as needed.

eu-LISA extended its support to Europol and opened an access to SIS and the relevant alerts, following the setting up of the Europol SIRENE Office. eu-LISA also assisted Europol in preparing for its connection to VIS. In addition, eu-LISA cooperated with Frontex in setting up its connection to SIS and ensuring that the relevant teams deployed in operations can consult SIS.

On 9-10 July, the JHA Agencies, the European Commission and Eurostat convened for a meeting at eu-LISA in Tallinn on the implementation of the interoperability regulations, discussing the state of play of the development of the different components of the interoperability architecture, with a focus on setting up the CRRS.

The eu-LISA-Frontex Service Level Agreement on the Frontex Disaster Recovery Site entered into force on 10 October 2019. eu-LISA is now hosting the recovery sites of two agencies, EASO and Frontex, in its data centre in Strasbourg, with the aim of creating synergies and saving costs among JHA agencies.

Throughout 2019, eu-LISA regularly attended the meetings of the Frontex Management Board. eu-LISA also participated in the annual European Border and Coast Guard Day 2019 organised by Frontex in Poland. Europol invited eu-LISA on a regular basis to its Management Board's Working Group on Information Management to provide updates on the implementation of the interoperability regulations. On 25-26 June 2019, eu-LISA participated in the annual meeting of JHA agencies' Training Contact Points, organised by CEPOL, and in the Annual CEPOL Stakeholder Meeting, both held in Budapest. The meetings shared updates on bilateral and multilateral cooperation initiatives among JHA agencies and contributed to the joint planning of training sessions for Member States on EES, ETIAS and interoperability.

The Agency continued its cooperation with ENISA following the signature of a Working Arrangement in 2018 and the conclusion of a Service Level Agreement in April 2019 setting out the provisions for the support of ENISA to eu-LISA's security and business continuity exercise on Eurodac held in November 2019.

In the context of new systems, technologies and legislation, the eu-LISA Security Officers' Network and Europol Security Committee had a joint meeting on 20 November to discuss security and business continuity aspects. The security experts exchanged best practices and knowledge.

eu-LISA actively contributed to the activities of the JHA Agencies Network, chaired in 2019 by Europol. The Agency contributed to inter-agency discussions on various topics, such as interoperability, innovation and ICT security. On the occasion of the 10th Anniversary of the Charter of Fundamental Rights of the European Union, the Heads of JHA Agencies endorsed a Joint Statement at the High Level Conference 'Making the EU Charter of Fundamental Rights a reality for all: 10th anniversary of the Charter becoming legally binding' organised by FRA on 12 November in Brussels. In The Hague on 22 November, the Heads of JHA Agencies discussed their current and future cooperation with a focus on the implementation of the new EU Strategic Agenda 2019-2024, the MFF 2021-2027 and the interoperability of IT systems and innovation. They also adopted a 'Joint Statement on Diversity and Inclusion'.

In 2019, eu-LISA also actively contributed to the activities of the EU Agencies Network and participated in thematic meetings in the field of communication, legal affairs, strategic planning, human resources and ICT. Two high-level meetings of the Heads of Administration and the Heads of Agencies were held, in Brussels in February and in Stockholm in October, respectively.

#### 1.3.3 Partnership with industry

Industry is a key stakeholder for the Agency, supporting its work in the delivery of high-quality technical solutions. Furthermore, monitoring the efforts of industry in research represents an important element in the Agency's general research monitoring efforts, in line with its establishing regulation. Efforts to engage this group continued in 2019 as in previous years, with the tenets of community, transparency and constructiveness guiding the work.

Similar to previous years, the Agency hosted two industry roundtable events in 2019. The 10th eu-LISA industry roundtable held on 24 April in Bucharest (Romania), with strong support from the Romanian Presidency of the Council of the EU, focused on requirements for integrated border solutions for land and sea borders. Following the publication of the report of the Working Group on ICT solutions for external land and sea borders, the Agency called on industry to contribute by identifying viable solutions and common architecture for the implementation of EES at the EU's external sea and land borders. The event brought together almost 100 representatives from the global border management and security industry to discuss legislative requirements, process and technologies.

The 11th industry roundtable event was held on 17 October in Tallinn and focused on the practical aspects of implementing the new JHA information architecture. The main goal of the event was to engage with the industry in discussing concrete proposals for the implementation of the new interoperability architecture, aligned with legal, functional and technical requirements. Following the publication of an extract of the feasibility study 'Elaboration of a future architecture for interoperable IT systems at eu-LISA', the Agency called on the industry for its contribution. The event convened over 100 participants from 51 different organisations in 19 countries, representing the global border management and security industry, EU Member States, the United States of America, Canada, the EU institutions and JHA Agencies, as well as academia.

# 1.4 Strategic goal 4

#### DEVELOP A MODERN, EFFICIENT AND AGILE ORGANISATION

#### 1.4.1 Organisational transformation programme: eu-LISA 2.0

In 2019, the Agency launched a transformation programme with the aim of delivering a new organisational structure, suited to the new eu-LISA mandate. This programme, eu-LISA 2.0, has been designed to ensure that the reorganisation process is open, transparent and involves the Agency's staff.

Through this organisational transformation, the Agency is striving for:

- Leaner and faster decision-making processes.
- More agility within the job, including more scope for innovations.
- More empowerment and ownership through new centralised functions and harmonised profiles.
- Better positioning of the Agency, leading to sustained success of the organisation.

To ensure the success of this transformation, the Agency put in place a change management plan. During the reporting period, this programme has progressed significantly. The Agency's new organigram has been finalised. It includes in particular a completely new structure for both the Operations Department and the Corporate Governance Department (former General Coordination Unit), with clearly mapped function-based sectors.

The work of the organisational transformation was divided into four work streams:

- Transfer of existing staff into the new organisational structure.
- Recruitment of new staff.
- Implementation of eu-LISA's new competency model.
- Revision of the functional descriptions of the units and departments and of the operational model of the Agency.

More information on the organisational transformation programme is available below under section 2.2.1.

# 1.4.2 Strategic and operational planning and reporting

The Agency is putting substantial efforts into the continuous development of its internal planning and programming processes, including strategy planning, multiannual and annual programming and reporting. It is continuously improving its corporate IT planning tools and providing the relevant training sessions. In 2019, all corporate reporting documents and programming documents were adopted and published within the timeframe set out in the legal instruments.

The Consolidated Annual Activity Report 2018 was adopted by the MB on 26 June 2019, after prior consultation with the AGs, and was subsequently sent to the European Parliament, the Council, the Commission and the Court of Auditors. It was also published on the Agency's website and translated into 22 official languages (in addition to the adopted version in English).

The Interim report on the implementation of eu-LISA's Programming Document 2019-2021 was adopted by the MB on 30 August, after consultation with the Advisory Groups, and was subsequently sent to the European Parliament, the Council and the Commission.

In accordance with the MB Decision on the delegation of powers to the Executive Director to make non-substantial amendments to the Annual Work Programme, on 29 March the Executive Director decided to include in the 2019 Annual Work Programme of the PD 2019-2021 a new activity relating to the implementation of the 2015 ICAO transliteration rules for SIS II. The decision followed a recommendation by the SIS II Change Management Group, subsequently endorsed by the SIS VIS Committee. This recommendation also received a positive opinion from the SIS AG, and was authorised by the Management Board on 12 December 2018.

On 19 November 2019, the MB adopted an amendment to include a study on the implementation of an application lifecycle management (ALM) process in the 2019 Annual Work Programme of the PD 2019-2021.

The draft eu-LISA Single Programming Document 2020-2022 was adopted by the Management Board on 30 January 2019 and was sent to the European Parliament, the Council and the Commission for their formal opinion. The final version was then adopted by the Management Board on 19 November 2019.

The Agency submitted the first draft of its Single Programming Document 2021-2023 to the Advisory Groups in October and to the Management Board in November 2019 for their review. The draft Single Programming Document 2021-2023 was adopted by the Management Board on 31 January 2020 and was then shared with the European Parliament, the Council and the Commission.

Following the roll-out of the new organisation (eu-LISA 2.0), the Agency began a revision of its planning processes.<sup>36</sup>

In June 2019, as requested by the MB, the Agency started the revision of its corporate KPIs and an updated set of corporate KPIs was presented to the MB in November. The Agency subsequently tested the new set of KPIs with the 2019 data and presented the new sets with the data for adoption in 2020.<sup>37</sup>

In the course of 2019, the Agency undertook an extensive revision of its Multiannual Financial Framework estimates taking into account the change in the global timeline for implementation of the new systems and their operational needs. The Agency's total request for the upcoming MFF 2021-2027 amounts to EUR 1 955 million. These appropriations will be required to finalise the implementation of EES, ETIAS, interoperability and the recasts of existing systems; to evolve the architecture of existing systems to ensure their high availability; to extend the Agency's operational capabilities; to migrate and integrate the existing systems into the new interoperability architecture; to implement the new secure network and to ensure the stable functioning of the Agency.

#### 1.4.3 Governance framework

#### **Internal Control Framework**

On 19 March 2019, the MB adopted the revised eu-LISA Internal Control Framework.<sup>38</sup> In its decision, the MB tasked the Executive Director with implementing the internal control principles and characteristics and with defining the internal control monitoring criteria. The MB also tasked the ED with appointing a Manager to be in charge of risk management and internal control. Following this decision, the Agency Management prepared the Internal Control Monitoring Criteria, which were adopted by a decision of the Executive Director and entered into force on 1 January 2020, together with the nomination of the Manager in charge of risk management and internal control. The ICF implementation, monitoring and its first assessment are described below in section 3 (page 88).

#### Governance bodies

In terms of its governance bodies, the Agency continued to provide quality administrative and logistical support for the successful functioning of the Management Board, Programme Management Boards and Advisory Groups.

The Agency has a team fully dedicated to the activities of the governance bodies (the Management Board Secretariat). This Secretariat supports the Chairpersons in ensuring the smooth functioning of the groups. Their main responsibilities are to ensure that meetings are efficiently organised and documented, to record, keep track of and follow up all the decisions and deliberations of the groups, to check legal compliance of the decisions and to monitor the legal obligations and to ensure permanent communication and correspondence with the members of the groups.

The Agency fully supported the creation and operation of the bodies related to the management of the new systems. From the beginning of 2019, the ETIAS Programme Management Board became functional. In March 2019, the remit of the EES Advisory Group was extended to cover ETIAS (EES-ETIAS Advisory Group).

In accordance with the EES regulations, the eu-LISA Management Board mandated the EES PMB to perform the assessment of the TTS (tender technical specifications) of the EES Central System (including the physical architecture and the Infrastructure of the NUIs). The EES PMB confirmed that the EES TTS are in line with the legal provisions, which contributed to the mitigation of risks related to the procurement procedure.

In addition, the Agency prepared well in advance the governance structures and processes related to the new formations about to start their activity, namely the Interoperability Programme Management Board, the ECRIS-TCN Programme Management Board, the Interoperability Advisory Group and the ECRIS-TCN Advisory Group.

<sup>36</sup> The new approach was tested in 2020 for the drafting of the Agency's Single Programming Document 2022-2024.

<sup>37</sup> The updated set of corporate KPIs was adopted by the MB in April 2020.

<sup>38</sup> Decision No 2019-042 of 19.03.2019, accessible at https://eulisa.europa.eu/About-Us/access-to-documents/public-register.

At the same time, the Agency continued to strengthen its relationship with the existing Advisory Groups (Eurodac, SIS and VIS), involving them in planning and operational processes in order to increase transparency and to benefit from their extensive experience and knowledge.

#### Total quality management

Following the first implementation of the Common Assessment Framework (CAF) self-assessment exercise in 2017, an action plan was prepared. The status of implementation of these actions was reviewed in 2019, and an end-of-cycle report was prepared and subsequently adopted by the Agency's Management Committee in Q4 2019. Out of 12 actions listed, 6 actions are completed or partially completed, 5 are ongoing and 1 was postponed. The report also confirmed the way ahead towards further implementation of CAF.

#### 1.4.4 Finance and procurement

The Agency continuously developed and strengthened its internal financial processes and procedures to ensure the transparent and effective management of its available financial resources.

Many efforts were also made to digitise certain significant tendering processes, via the e-submission platform. With the support of the Commission, the Agency will be in a position to use the e-submission platform fully, resulting in a definitive shift from paper to electronic workflows in tendering processes.

eu-LISA made a renewed effort to plan for the future, especially in the areas of budget and procurement, and to embrace change in its processes: 2019 has seen a progressive shift from paper to electronic workflows — using the EU-wide Advanced Records System (ARES) — for most processes in the areas of finance, budgets, assets and procurement. Reengineering processes is a key factor in ensuring the continued success of the Agency as it is becoming clear that the new tasks and consequently increased workload will not always result in a corresponding increase in staff, especially with regard to corporate functions.

The elements necessary for the future deployment of activity-based budgeting were established, along with continuous monitoring and development of the Agency's financial and procurement procedures.

#### 1.4.5 Human resources

In 2019, human resource management activities focused on three major areas: optimisation and sound management of HR, development and implementation of HR IT tools and staff training related to operations.

#### Optimisation and sound management of human resources

The top priority of the Human Resources Unit in 2019 was to support the organisation in the implementation of the eu-LISA 2.0 organisational transformation programme. Three out of the four work streams related to the programme were directly linked to Human Resources. In 2019, the Agency launched the transformation programme with the aim of delivering a new organisational structure, in line with the new eu-LISA mandate, ensuring that the right people are in the right place.

The Human Resources Unit ensured that, throughout the transformation programme, consultations were organised with staff and progress was regularly communicated through various channels, including a dedicated space. Furthermore, significant time and effort was put into listening and addressing potential concerns that had been raised. This fostered staff engagement in the transformation process and contributed to the successful implementation of the new structure. All staff members impacted directly by the transformation also received updated job descriptions that informed them about their new tasks and responsibilities.

#### Development of HR IT tools and their implementation

In 2019, a project to connect EU agencies to Sysper moved from the development and analysis of user needs to the implementation phase. In June 2019, the first basic module on the organisational structure (ORG) was put into operation

and the second module on staff and their career-related data (CAR) came on stream in October. The transfer of staff data was finalised and the change to eu-LISA's organisational structure was also implemented.

The e-Recruitment tool based on the Allegro system was fully implemented and updated for the submission and registration of candidate applications. This contributed to the efficiency of the Recruitment team and reporting on the received applications. Due to the extreme workload related to recruitment, any future changes to the system would require additional resources. However, the Recruitment team managed to modernise the selection process by using online interview tools and online testing possibilities. This is an area that will continue to be developed in future.

The eu-LISA Learning Management System (i-Learn) was further developed and processes linked to learning and performance have been better streamlined by means of the tool. Furthermore, digitisation training requests reached a mature level and the launch is aimed for early 2020. A new e-learning module on the prevention of harassment has been created and is available for all Agency staff.

#### Staff training related to operations

From September, numerous onboarding sessions have been organised for all newcomers, covering all topics of importance for the Agency (e.g. systems, business relations, ethics and code of conduct).

More detailed information on the activities, achievements and indicators in the area of Human Resource Management are described below in section 2.4.

#### 1.4.6 Corporate services and facilities

#### **General Services**

The Agency's headquarters are located in Tallinn, Estonia, its main technical site in Strasbourg, France, its backup technical site in St Johann im Pongau, Austria, and its liaison office in Brussels, Belgium. Faced with a significant increase in the number of staff and on-site contractors, which had already begun in 2019 and will continue at least until 2021, the Agency has for several years been engaging in significant projects to enlarge the size of its facilities. eu-LISA's main objective is to ensure that everyone working for and with the Agency enjoys a functional, efficient and pleasant working environment.

The General Services team effectively matches demand for, and supply of, functional accommodation and associated support services to meet operational requirements. Furthermore, it maintains a constant and continuing interest in the improvement of occupational health and safety (H&S) performance and on the design, implementation and maintenance of an H&S Plan. A new environmental KPI has been introduced to support sound energy management and monitor the Agency's carbon footprint.

In addition, the Agency is outsourcing logistics and supply services to qualified, efficient and competent providers. All services are timely provided, as a business resource to support the fulfilment of business objectives.

A new maintenance contract has been put in place for the operational site in Strasbourg to ensure a secure, efficient and functional building infrastructure in line with business requirements. All equipment and assets are maintained according to a continuously optimised maintenance programme.

Furthermore, the Agency has decided to extend its current site in Strasbourg. Following an *ex ante* check with the European Commission and the French representative of the Management Board, it was agreed that France, as host country, will support the Agency for the design and implementation of the project. At the end of 2019, the Agency signed a contract for a programmers' service to prepare the requirements and the technical conditions for a design service that is expected to start at the end of 2020. The MB was also regularly informed and, together with the Agency, closely followed the project for the second extension of the Strasbourg technical site and the risk associated with the lack of facilities to host new systems, staff and on-site contractors. Preliminary information about the project was submitted to the budgetary authorities on 2 April 2019. In the meantime, the Agency pursued the lease of temporary office space and

the setting up of a temporary on-site infrastructure for the extension of the primary data centre to mitigate in a cost-effective way the risk associated with the lack of facilities to host new systems, staff and on-site contractors. The temporary office space is expected to be occupied in Q4 2020.

The missions management service was improved with the introduction of two ARES workflows, one for travel requests and a second for travel reimbursement, which helped the Agency move towards a paperless environment.

#### Document management services

Following the requirement to create a long-term archive preservation strategy, the Agency recruited a Document Management Officer in August 2019. This facilitated the creation of an 'eu-LISA long-term preservation policy' and 'eu-LISA long-term preservation procedures'. The implementation of this policy along with the procedures guarantees the Agency's compliance with any legal and regulatory obligations, as well as ensuring that eu-LISA's records are protected and preserved during their entire life cycle.

#### Information and communications technology (ICT) services

The Agency's ICT services ensure that all ICT systems and applications operate within optimal parameters, are reliable and available to Agency users as required, provide end-user support and manage all ICT projects according to the Agency's needs.

During 2019, in order to support the internal needs of the Agency, the ICT services made improvements in Corporate IT applications and the development of infrastructure in networks, systems, virtualisation and new storage technology.

In particular, the main achievements in the areas of ICT systems were the replacement of the end-of-life videoconference/teleconference software, offering a better user experience, the migration to Windows 10 and Office 2016, ensuring consistent performance and security in our environment, the deployment of a new storage system to support the increased demand by eu-LISA users, the implementation of CERT-EU services in order to increase the security of eu-LISA networks and a new backup software that was configured to back up all ICT components, adding a new functionality, efficiency and scalability to the Agency's backup operations.

Furthermore, the corporate applications were enhanced with workflows for internal procedures, improvements and extra functionalities in the SharePoint platform, supporting corporate planning and reporting, and with the creation of a contract monitoring tool. In addition, the e-learning service continuity for staff and Member States was safeguarded during the year by maintaining e-learning's infrastructure according to eu-LISA's IT security policy.

Finally, in 2019 the ICT service desk received 7 824 tickets, acting as the single point of contact for all technology-related questions and requests for all users within the Agency.

#### 1.4.7 Communication

#### **External Communication**

The eu-LISA 2019 objectives for corporate communication were to increase visibility, ensure credibility and foster mutually beneficial relations between the Agency and its stakeholders. The Agency took several steps towards improving its public information tools, including an in-depth analysis of website needs, encompassing measures to ensure that future web developments are in line with both the reliability and security requirements that will stem from EES and ETIAS legal instruments. The project to refresh the Agency's visual identity was started in 2019 with a view to updating and streamlining all design-related elements and also to consider providing sub-branding for the large-scale IT systems managed by eu-LISA as part of the future launch of EES and ETIAS, which will provide a far greater public exposure for the Agency than in the past. A self-contained infographic-style micro-website has also been in development to showcase the systems, the interoperability programme and the areas that have grown in prominence with the broadened mandate of the Agency – training, research and reporting and statistics. The launch is scheduled for Q2 2020. In 2019, the Agency's public website maintained an annual average of approximately 100 000 visitors, with visit

duration averaging over 2 minutes. The bounce rate was around 41 %, owing to the very specific nature of the Agency's activity, but shows a definite growth trend. The pages relating to job opportunities sparked the most interest. New content was added on the most recently created AGs, on the Working Group for Carriers and on Access to Public Documents. These new additions generated public interest and served to highlight the Agency's dedication to transparency. The Agency focused proactively on efforts to share highlights and provide transparency via social media channels, which all showed a considerable growth in follower numbers (+ 33 % on Twitter, + 58 % on Facebook and + 99 % on LinkedIn). This is related to acquiring the required resources and tools, which are necessary for planned and targeted actions, available for regular communication activities.

eu-LISA's communications made notable efforts to enhance eu-LISA's visibility, raise awareness and share relevant information with different stakeholder groups. The high points were the 6th eu-LISA Annual Conference and the two Industry Roundtables. The Annual Conference – 'The New Information Architecture as a Driver for Efficiency and Effectiveness in Internal Security' - was organised under the auspices of the Finnish presidency of the Council of the EU and brought together close to 200 delegates representing Member States, EU institutions and Agencies as well as practitioners from industry and academia. The high satisfaction rate expressed by the participants (96.6 %) was a definite indicator of success. The two industry roundtables, organised in the spring and autumn, with a total turnout of over 190 participants, provided valuable fora for focused discussions (more details on the roundtables above on page 54). The Agency was also active in more than a dozen conferences and seminars, such as the European Police Congress, the Passenger Terminal Expo and Conference and the International Borders and Security Conference, to mention but a few.

#### Internal communication

In 2019, the highest priority area for internal communication derived from the organisational transformation, eu-LISA 2.0. Regular updates were shared about the transformation process throughout the year. These included staff assemblies to strengthen two-way communication and allow employees to address their concerns and question top management directly, a dedicated website, a special section in the weekly newsletter and other means of online and off-line communication. The Agency paid particular attention to ensuring transparency and making updated information easily accessible to all employees. A total of 79 meetings and events were covered by the internal communication team (with articles and photo galleries). In 2019, 44 issues of the weekly News and Info were published, a primary source of information for 89 % of employees.<sup>39</sup>. In addition, 74 intranet posts were written and 6 staff assemblies (general and topic-specific '1 Hour with the Executive Director' meetings) were organised, in which some 100 questions gathered from staff were addressed by the management.

The Agency expanded its Crisis Communication Plan, contributing to the further development of the Crisis Management and Response Plan, as part of the Business Continuity Plan.

A special end-of-year publication, 'eu-LISA Highlights 2019', was produced and distributed to all employees to help build an organisational culture within the newly transformed organisation.

According to the 2019 annual survey on internal communication, the overall satisfaction rate with internal communication channels and actions was 94 %. The number of very satisfied respondents increased by 5 % and the dissatisfaction rate decreased by 6 % compared with 2018.

#### 1.4.8 Internal audit

The Agency's Internal Audit Capability (IAC) provides independent and objective assurance and consulting services to the Executive Director and the MB. The Agency continued its cooperation with the European Court of Auditors and the Internal Audit Service of the European Commission, hosting their audit missions and taking measures to respond to the resulting recommendations where necessary. The IAC coordinated work in this area, including the preparation of

<sup>39</sup> Internal Communication Satisfaction Survey 2019.

reports, missions and follow-up activities, and also raised general awareness among the Agency's management and staff of the principles, objectives and procedures of internal and external auditing.

The 2019 results of IAC's performance indicators are presented in Table 4.

Table 4: IAC 2019 performance indicators

Indicator	2019	2018	2017
Implementation rate of the annual internal audit plan.  Target > 80 %	89 %	91%	90 %
Staff training hours per year vs. budget.  Target: baseline (IAC training budget is 64 hours per year per employee).	53 %	n/a	n/a
Audit topics delivered on time.  Target > 80 %	42 %	70 %	67 %

The result of 42 % of the performance indicator 'Audit topics delivered on time' suggests that IAC needs to improve the time lag between draft report and final communication to the Executive Director and the Management Board. To this end, by June 2020, IAC will introduce a reporting template and a standard communication workflow with respective managers, emphasising the provision of timely input to audit procedures (i.e. validation of findings and comments to audit report).

The following topics were added to the initial internal audit plan, which was adopted by the Management Board 40 in November 2018, and delivered:

- Survey on the Programme Steering Committee effectiveness (consulting).
- ECA performance audit on EU Agencies (coordination).

The following topics were delivered on time:

- ECA audit on the legality and regularity of eu-LISA's 2018 Accounts final (coordination).
- ECA audit on the legality and regularity of the 2019 Accounts interim (coordination).
- Monitoring and follow-up of audit recommendations (assurance & in coordination with IAS).
- Delivering awareness sessions on ethics & integrity (in coordination with HRU).
- Survey on the Programme Steering Committee effectiveness (consulting).

The following topics were delivered (i.e. final audit report communicated to the Management Board and Executive Director) with delays:

- Implementation of the new organisational structure of the Agency (consulting).
- Facilitation of deployment of eu-LISA's revised Internal Control Framework (consulting).
- ECA performance audit on Border Control Information systems for Internal Security (coordination).
- Monitoring and reporting on the implementation of the Agency's Anti-fraud Strategy (consulting).

The following topics were delayed and will be delivered in the first part of 2020:

- IAC review on the Entry/Exit System (EES) project: Business and IT Alignment (assurance).

<sup>40</sup> Decision 2018-168, point B.6.

- IAS audit on Recruitment, Management of SSPs, Ethics (coordination).
- ECA Performance Audit on EU Agencies (coordination).

IAC regularly contributed to the agenda and assessments of the Audit, Compliance and Finance Committee of the Management Board (ACFC), as requested.

# 2 Management

## 2.1 Management Board

In 2019, the Agency continued its very close, transparent and constructive collaboration with its Management Board. In addition to the items approved by the MB in accordance with its functions, the Agency regularly presented to the MB all the significant risks and issues identified during the reporting period, alongside the mitigation measures implemented.

The status of implementation and the reports from the EES and ETIAS AGs and PMBs were regularly presented to the MB. These included the presentation of the programmes' risks and issues. In particular, on several occasions the MB addressed the need for the strong involvement of the Member States to ensure the timely delivery of the programmes. The MB also approved the relaunch of the EES BMS procurement to include sBMS.

The SIS, VIS and Eurodac AGs reported to the MB on the status of their work, including the risks and issues associated with the systems' operational management and evolution projects.

The MB was regularly updated on the status of the negotiations with the new Multiannual Financial Framework (MFF) for 2021-2027. In June 2019, the MB expressed its concern that, if the financial resources allocated to the Agency were insufficient, eu-LISA might not be in a position to deliver on all tasks, jeopardising its ability to guarantee the stability and availability of the systems. The MB also closely followed the project for the second extension of the Strasbourg technical site and the risk associated with the lack of facilities to host new systems, staff and on-site contractors. The MB was regularly updated on the status of implementation of the Agency's transformation programme (eu-LISA 2.0), which is closely connected to an identified corporate risk (organisational instability). The Agency consistently submitted the Monitoring Report on the status of the implementation of audit recommendations to the MB.

On 12 February, the MB appointed a new Data Protection Officer. On 20 March, the MB adopted the eu-LISA Internal Control Framework and the eu-LISA Anti-Fraud Strategy for 2019-2021. On 28 August 2019, the MB adopted eu-LISA's updated Financial Rules. On 20 November, the MB appointed Mr Luca Tagliaretti as Deputy Executive Director of eu-LISA for a period of five years.

## 2.2 Major developments

#### 2.2.1 eu-LISA 2.0

As mentioned about in section 1.4.1, in 2019, the Agency launched a transformation programme with the aim of delivering a new organisational structure, suited to the new eu-LISA mandate. This programme, eu-LISA 2.0, has been designed to ensure that the reorganisation process is open, transparent and involves the Agency's staff.

To ensure full ownership of eu-LISA 2.0 within the Agency, a Task Force 2.0 was formed to work on the description of the new duties and functions of the sectors and units in the transformed Agency. The Task Force also updated key corporate and operational processes, providing a full picture to the Management and contributing to the definition of the Agency's new operating model. The selection procedure for heads of newly created units was concluded in May for the Operations Department and in November for the Corporate Governance Department.

Since 1 September 2019, the organisation has had a new organisational structure, with a view to becoming a state-of-the-art organisation and achieving a new way of thinking and operating.

Throughout the transformation programme, consultations were organised and progress was regularly presented to Agency staff, at both individual and Agency level. This fostered the engagement of the staff in the transformation process and contributed to the successful implementation of the new structure. A dedicated information platform called 'eu-LISA 2.0' was set up to host communications and discussions. It was continuously updated and promoted among the staff. Dedicated staff assemblies on the transformation of the Agency were regularly convened to report on the

status and progress of the work performed. Questions and concerns raised by staff were answered, facilitating two-way communication with the Management team.

The Agency organised change management training sessions on the topic of 'responding positively to change', both in Tallinn and Strasbourg. Agency staff gained information on how to respond to change, the importance of a positive approach to a changing situation and the need to identify their role in the change process. Similar sessions were organised for staff in a management role in order to learn how to lead change successfully, use relevant models to implement change, explore potential reasons of resistance and help individuals work constructively through change.

In addition, the Agency created a branding around the organisational transformation (eu-LISA 2.0), supported by simple and impactful methods such as videos, branded items or workshops with seasoned speakers. This helped to ensure that the majority of Agency staff felt positive about the upcoming change. In the 2019 internal communication survey, 72 % of respondents answered that they had received regular information and updates about the Agency's transformation, 73 % felt that the communication channels used to inform them about the transformation met their needs and 65 % answered that the quality and frequency of information relating to eu-LISA's transformation process met their needs.

The Management Board was also regularly informed about the progress of the transformation programme.

Figure 11 shows the major milestones and timeline of the eu-LISA transformation programme. All milestones due during the reporting period were met.

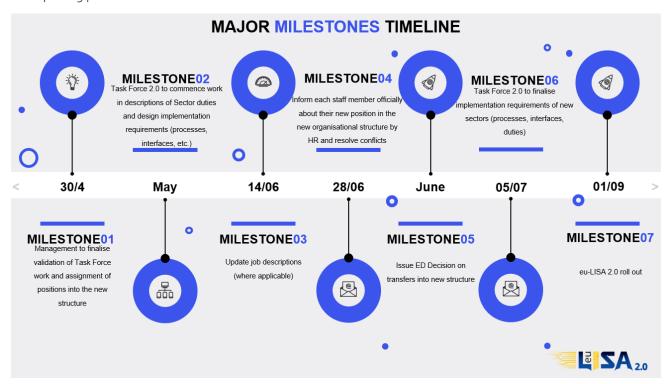


Figure 11: eu-LISA 2.0 - Major milestones timeline

While change brought new challenges to the Agency, it is giving the organisation a chance to reshape and reinvent itself. The shift from a 'silo' model to a transversal operating model requires new ways of thinking and working. The momentum from eu-LISA 2.0 will be harnessed to instigate a transformation of the corporate culture, fostering the 'together as one – we are making it happen' attitude.

#### 2.2.2 New legislation

Significant changes to the legal environment in which eu-LISA operates took place in 2019.

On 11 December 2018, eu-LISA's new establishing regulation entered into force. With the strengthening of its mandate, the Agency now has increased responsibilities for the design, development, interoperability and operational management of existing and new systems in the area of security, border management, migration and asylum. The new mandate broadens the scope of the Agency's work, providing it with a greater role in the area of research, assurance of data quality in systems as well as pilot projects, proofs of concept and testing activities directly related to its mandate.

Three new regulations aimed at further strengthening the SIS entered into force on 28 December 2018, setting out the requirements for implementing the various provisions within either one, two or three years from the entry into force of the respective legal acts. The revised legal framework is also geared towards ensuring the full interoperability of SIS with other EU systems for migration, border management and security. The AFIS functionality has also been further enriched.

On 11 June 2019, the ECRIS-TCN Regulation entered into force. eu-LISA is responsible for the development and operational management of ECRIS-TCN, the first large-scale IT system designed and developed by eu-LISA that is primarily for justice purposes.

On the same date, two regulations establishing a framework for interoperability between EU information systems in the areas of (1) police and judicial cooperation, asylum and migration; and (2) borders and visa entered into force. The development of interoperability technical components, namely the Common Identity Repository (CIR), the European Search Portal (ESP), the shared Biometric Matching Service (sBMS), the Multiple Identity Detector (MID) and the Central Repository for Reporting and Statistics (CRRS), is an iterative process and before it can become fully established, EES and ETIAS need to be implemented.

#### 2.2.3 Impact of the UK withdrawal from the European Union

Following the signing of the agreement on the draft Withdrawal Agreement of the United Kingdom from the European Union in November 2018, the Agency monitored the situation constantly in order to identify potential new obligations. With regard to law enforcement and internal security, after the withdrawal on 31 January 2020 and the subsequent transition period ending on 31 December 2020, the UK will cease to have access to any Union information systems under the operational management of eu-LISA, more specifically SIS and Eurodac. Expecting the withdrawal to take place in 2019, eu-LISA made all the necessary preparations to disconnect the UK and possibly delete UK data from SIS and Eurodac as and when required by the legal framework. The Agency regularly discussed the technical details with the European Commission and the respective AGs and participated in a dedicated working session on Brexit organised by the Commission for the EU Agencies on 5 September. The Agency made the necessary preparations for the application of the provisions of the Withdrawal Agreement and the respective Commission guidelines regarding the UK participation in the Agency's governance bodies, human resource management, statistical reports and other relevant matters.

## 2.3 Budgetary and financial management

#### 2.3.1 Financial management

eu-LISA's budget is financed through different funding sources. The main revenue comes from an EU subsidy, received on an annual basis from the EU budget — Commission section, Chapter 18 oz 'Internal Security' — as adopted by the budgetary authority. Additional contributions are received from associated countries.

As part of its annual reporting framework, the Agency publishes its budget execution rates and performance indicators, demonstrating efficiency and effectiveness in the management of spending during the reporting period.

<sup>41</sup> In accordance with Article 46(3) of Regulation (EU) No 2018/1726.

<sup>42</sup> See Article 45(5) and (6) of Regulation (EU) No 2018/1726. This subsidy relates to C1 commitment and payment appropriations (voted credits for the current budgetary year).

#### 2.3.2 Budgetary implementation

The 2019 final statement of the revenue and expenditure was adopted by eu-LISA's Management Board<sup>43</sup> on 21 December 2018.

The Agency had a high budget implementation rate at the end of 2019:

- 99.7 % for commitment appropriations, taking into account the non-automatic carry-over of commitment appropriations authorised by the Management Board in February 2020 as summarised in Table 5;
- 99.3 % for payment appropriations including the carry-forward of administrative expenditure to 2020.

Table 5: Commitment appropriations (amounts in EUR million)

2019 budget imp	olementation as	at 31/12/2019	Budget implemei	ntation with carry-over by decision
2019 final	2019 final Executed Implemented			Implemented taking into account
adopted budget	commitments	(%)	carry over	non-automatic carry-over (%)
288.403	128.370	44.5 %	159.076	99.7 %

Of the total budget, a proportion was subject to the adoption of a legal basis and/or implementing acts for new tasks assigned to the Agency, as indicated in Table 6.

Table 6: Commitment appropriations for new tasks (in EUR million)

New tasks/systems	Commitment appropriations
LFS SIS recast border/police cooperation	2.261
LFS SIS recast return	0.517
LFS ECRIS-TCN	4.116
LFS Interoperability	5.830
Total budget subject to new legal basis	12.724

Table 6 amounts include administrative expenditure, to be allocated according to the budgetary nomenclature in Title 1, 'staff expenditure', and Title 2, 'infrastructure and operating expenditure'.

#### Amending Budget No 1

The Agency's 2019 budget included appropriations as follows:

- a) For the development of new systems (Recast Eurodac, Dublin Allocation), use of the budget was conditional on the adoption and entry into force of the relevant legal basis.
- b) For the development of EES, ETIAS, Interoperability, SIS recast and ECRIS-TCN: the legal basis was adopted but a budget was not required at this stage, as procurement was ongoing.
- c) Payment appropriations received during the EU budgetary procedure establishing the Agency's budget but which were not requested by the Agency.

The Management Board approved one amendment to the budget addressing the issues highlighted above by:

- Returning EUR 8.289 million in commitment appropriations.
- Returning EUR 66.051 million in payment appropriations.

Table 7 provides a detailed breakdown of the amending budget by budgetary title.

<sup>43</sup> In accordance with Article 45(7) of Regulation (EU) No 2018/1726.

Table 7: Breakdown of 2019 amending budget (in EUR million)

			Amending budget			
Budgetary title		System/task	Commitment appropriations	Payment appropriations		
	Staff expenditu	re	-2.554	-2.554		
Ao1		Interoperability	-2.006	-2.006		
A01	of which	Eurodac recast	-0.268	-0.268		
	Staff expenditure    Interoperability	ECRIS-TCN	-0.280	-0.280		
	Operational exp	enditure	<b>−5.735</b>	-63.497		
	<u>.</u>	Interoperability		-1.688		
		SIS recast		-0.299		
		Eurodac recast	-5.600	-3.920		
Dan		Dublin Allocation	-0.135	-0.135		
Bo3	of which	EES		-23.523		
		ETIAS		-6.643		
		ECRIS-TCN		-3.766		
		Additional payment appropriations not requested by eu-LISA		-23.523		
		Total 2019 amending budget	-8.289	-66.051		

#### Carry over by decision

The ongoing procurement for EES, ETIAS, Interoperability, SIS recast and ECRIS-TCN allowed the Agency to carry over EUR 159.076 million in commitment appropriations from 2019 to 2020 by a Management Board decision in order to preserve these funds for use in the following years (Table 8).44

Table 8: Breakdown of 2019 carry-over (in EUR million)

Budgetary title System/task		Non-automatic carry-over of 2019 commitment appropriations
	Interoperability police cooperation/border	2.818
Bo <sub>3</sub> Operational Expenditure	SIS recast	7.328
	EES	131.415
	ETIAS	9.983
	ECRIS-TCN	7.532
Bo <sub>3</sub> total		159.076

Upon the submission of a legal proposal to the budgetary authority, the respective appropriations are inscribed in the budget. As a result of the delayed adoption of the legal proposals of all new tasks entrusted to eu-LISA, the Agency had to carry over/forward the corresponding budget.

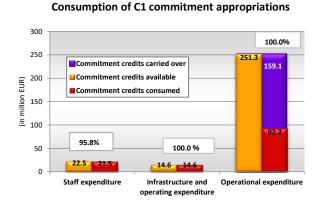
#### Commitment appropriation execution

The commitment credits (C1) voted for 2019 were divided among the different titles as follows:

- 87.13 % for the operational budget (Title 3);
- 5.07% for infrastructure and operating expenditure (Title 2);
- 7.8 % for staff expenditure (Title 1).

Figure 12 and Figure 13 show the budget implementation by title at year end.

<sup>44</sup> In line with Article 12(3) of the Agency's financial regulation. The Management Board decision was adopted before 15 February 2020.



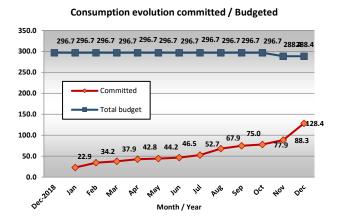


Figure 12: Consumption of C1 commitment appropriations

Figure 13: Trends in consumption of funds committed and budgeted

With regard to Title 3, owing to the multiannual nature of the contracts used to support core operations, EUR 78.7 million of 2019 open commitment appropriations were automatically carried forward and will be paid in 2020 and in the following years. EUR 159.1 million in commitment appropriations related to new tasks were carried over by a Management Board decision.<sup>45</sup> A detailed breakdown is shown in Annex IIError! No bookmark name given.

Of the operational budget, 100 %, amounting to EUR 251.3 million, was implemented (EUR 159.1 million carry-over and EUR 92.2 million of executed commitment appropriations). Figure 14 shows the breakdown of the operational budget by chapter, excluding the carry-over amounts, as listed in Table 8.

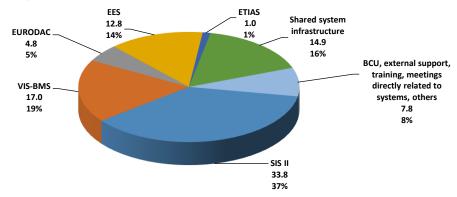


Figure 14: Title 3 executed commitment appropriations (EUR million)

In 2019, the Agency cancelled EUR 4.818 million of commitment appropriations carried forward from previous years, representing 2.1 % of the total carried-forward appropriations in title 3 – operational expenditure. Table 9 summarises the de-commitments by year of origin of the underlying legal commitment.

<sup>45</sup> Management Board Decision 2020-19 of 07/02/2020.

Table 9: 2019 de-commitments	of budgetary commitment	s by year of origin (in EUR million)

Budget Chapter	Budget Article	2016	2017	2018	2019	Total
Infrastructure	Shared system infrastructure/Wide area network	_	_	-3.317	-0.586	-3.903
Applications	SIS II VIS EURODAC EES	-0.183 — — —	-0.123 -0.036  -0.030	-0.040  -0.002 -0.060	- - -	-0.346 -0.036 -0.002 -0.090
Operational support	Operational support	-0.072	-0.107	-0.261	_	-0.440
Total		-0.255	-0.296	-3.681	-0.586	-4.818

80.3 % of the cancellations refer to appropriations transferred to the Agency as global commitments in the scope of the hand-over of the VIS and SIS networks from DG HOME. These appropriations were transferred without underlying legal obligations and were not required during the reporting year. Table 10 provides a detailed overview of the respective global commitments:

Table 10: 2019 de-commitments of global (L1) commitments (amounts in EUR million)

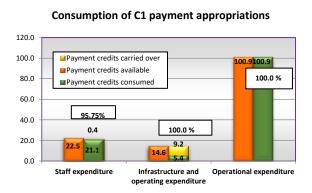
Budget Article	Global (L1) commitment	Year of origin	Carried forward amount	Consumption amount	De- commitment amount
Shared system infrastructure	Transfer of the contractual and financial responsibility related to the VIS network from DG HOME to eu-LISA	2018	5.695	-2.411	-3.284
Wide area network	Transfer of the contractual and financial responsibility related to the SIS network from DG HOME to eu-LISA	2019	2.451	-1.865	-0.586
Total					-3.870

EUR 0.948 million refer to cancellations of budgetary commitment appropriations for which the contract end date was reached, and contractually foreseen provisions were not required (e.g. de-commitments referring to external support contracts, which included extra costs for overtime; de-commitments of remainders of AG meetings and training related to systems and Member States; de-commitments due to applied liquidated damages).

#### Payment appropriation execution

The total voted budget for payment appropriations amounted to EUR 138.1 million.

At the end of 2019, the execution of payment appropriations for C1 credits reached 99.3 %, including the carry-forward of administrative expenditure to 2020. Figure 15 and Figure 16 show the breakdown of the total budget by title and overall consumption of funds and payment appropriations during 2019.



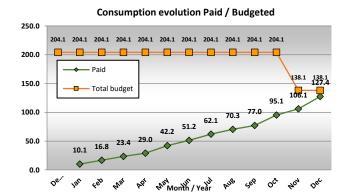


Figure 15: Consumption of C1 payment appropriations

Figure 16: Trends in consumption of funds paid and budgeted

A total of 87.4 % of the payment appropriations carried forward from 2018 to 2019 in administrative expenditure has been executed.

Commitment appropriations in Title 1 (staff expenditure). amounting to EUR 0.5 million and in Title 2 (infrastructure and operating expenditure) amounting to EUR 9.2 million, not yet paid in 2019 and for which a valid legal commitment exists, were carried forward to 2020 together with the corresponding payment appropriations.

Within Title 3, the largest proportion of payment appropriations was spent on VIS/BMS. Figure 17 shows the breakdown of executed payment credits for the operational budget.

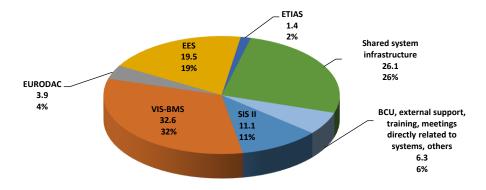


Figure 17: Title 3 executed payment appropriations (EUR million)

#### Performance indicator: time to pay

A total of 3 138 payment transactions were carried out in 2019, an increase of 17.53 % over 2018.

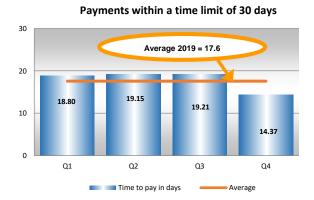
#### Of these:

- 2 957 transactions had a maximum payment time of 30 days.
- 1 transaction had a maximum payment time of 35 days.
- 132 had a maximum payment time of 60 days.
- 48 had a maximum payment time of 45 days.

The average time to pay for all types of payments remained far below the stipulated time limits: 17.6 days for 30-day payments; and 38.3 days for 60-day payments.

<sup>46</sup> Commitment and payment appropriations related to remuneration are not carried forward.

Q1



# Average 2019 = 38.3 50.50 45.78 44.89 26.60

Q3

Q4

Payments within a time limit of 60 days

Figure 18: Payments within a time limit of 30 days

Figure 19: Payments within a time limit of 60 days

Time to pay in days

Overall, 92.8 % of all transactions were made within the contractual time limit. 226 payments were delayed, of which 12 resulted in late interest, amounting to EUR 5 075.01 payable to creditors.

#### 2.3.3 Procurement procedures

Table 11 shows the results of a synoptic volume analysis performed by examining the number of transactions (i.e. contracts) in the period 2014-2019. The volume analysis highlights the need to strengthen procurement functions across the Agency.

Contracts	2014	2015	2016	2017	2018	2019
Direct contracts	16	12	5	17	9	12
Framework contracts eu-LISA (non-systems related)	3	5	3	_	6	11
Framework contracts eu-LISA (non-systems related) — amendments	_	_	_	2	16	0
Framework contracts eu-LISA (systems related)	2	_	1	1	1	1
Purchase orders	76	49	55	54	54	56
Specific contracts / order forms under framework contracts	118	195	278	337	476	558
Total	215	261	342	411	562	638

Table 11: Volume of contracts (2014-2019)

# 2.4 Human Resources Management

In 2019, key achievements in the area of Human Resources Management included the implementation of 'eu-LISA 2.0' described above in section 2.2.1, the deployment of the first basic modules of Sysper (HR IT tool), the efficient use and further improvement of the e-Recruitment tool and the enhancement of the Learning Management System (i-Learn).

#### 2.4.1 Recruitment

Recruitment was a major activity in 2019, following the evolution of the Agency. Calls for 20 external vacancies were closed for applications in 2019 and 84 new contracts signed. The total number of applications received was 1751, with an average of 88 applications per call, and ranging from 44 to 196 applications per call. The Agency interviewed 385 candidates for the TA and CA posts.

Recruitment of the additional staff granted to eu-LISA in 2019 posed a challenge due to its scope, specific profiles, timing (with the legal base adopted at the end of the year) and the necessary involvement of Agency staff in the process.

eu-LISA had to invest in enlarging the recruitment team and prioritise recruitment for the ETIAS, ECRIS-TCN, SIS, new establishing regulation and Interoperability, as well as for the replacement of staff leaving eu-LISA during the course of the year due to normal turnover or end of contract. Several selection procedures that were started in 2019 were concluded in Q1 2020, and the Agency expects to meet its recruitment target in 2020.

Where possible, the grouping of profiles and longer reserve lists were used to cover several posts within one recruitment procedure. In other cases, the Agency used valid reserve lists already established for the same grade/function group and profile. The use of these methods generated significant efficiency gains. In 2019, 7 TAs and 10 CAs were recruited (including job offers accepted by 31/12/2019) from existing reserve lists for the period 2016 to 2018.

The Agency noted a rise in the number of applications following the introduction of the e-Recruitment platform in December 2018 and the initiative to publish vacancies more widely (e.g. on the EPSO website, EuroBrussels, LinkedIn, etc.). The Agency is planning to continue down that route.

#### 2.4.2 Learning and development

To support the organisational transformation, eu-LISA provided a series of training, workshop and discussion opportunities. The activities included face-to-face seminars, team-game exercises to encourage engagement and effective organisation change, a selection of highly motivational guest speakers, promotional videos and animations linked to eu-LISA's core values.

eu-LISA's values drive and underpin its operational activities and any strategic development. A tailor-made course on sexual and other forms of harassment, prepared in cooperation with confidential counsellors and eu-LISA staff, was introduced.

With the organisational transformation, new sectors, units and departments have been created. People have moved to different positions internally and new functions have been created. Moreover, the workforce will continue to grow over the next years. To nurture this transformation, there were team development activities, where teams described their mission/purpose, roles and responsibilities, intra-team relations, inter-team relationships and developed KPIs and action plans.

In addition, a total of around 40 training activities were organised in-house, in line with the annual training needs analysis, which involved more than 600 participants, with an average general satisfaction rate of 80 %. A total of 185 individual training requests was also processed, and met with satisfaction, on specialised topics related to operations, IT, individual development, leadership and language.

At the end of 2019, a learning concierge service was launched in an effort to empower and provide personal advice to staff on how to address their own development and performance challenges in the way that works best for them.

The library of specialised courses on the platform continues to grow in order to accommodate learning by staff members at their own convenience.

#### Competency framework

eu-LISA continued to evolve towards a competency-based approach in its core HR processes. In line with the Competency Framework Implementation Plan, the framework was included in recruitment processes and was also integrated into performance management activities, such as the 36o degree evaluation and the identification of learning needs.

#### Performance management

While moving towards a competency-based approach, there have been activities to further digitise the entire objective-setting and appraisal process. Objective-setting and appraisals have now been incorporated in order to promote the timely completion of the whole process. This also allows HR to monitor the process much more closely.

In 2019, eu-LISA continued with its non-financial rewards initiative 'Colleague of the Year'. The initiative was established to acknowledge and celebrate those colleagues and teams whose contribution to the Agency is highly appreciated by their peers. eu-LISA staff were asked to identify the best colleagues and teams in different categories based on eu-LISA's values.

#### Leadership Development

An analytical 360 degree evaluation of all management levels was conducted with the aim of assessing the current level of leadership and potential areas of improvement. The survey had a participation rate of 88 % and the Competency Framework was used as the basis.

Aside from the resulting statistical reports, HR offered individual coaching sessions to all managers to support them in reflecting further on the results and advise them how to use those findings for the benefit of their team. The information collected set the basis for the analysis and design phase of eu-LISA's Leadership Development Programme. This phase was successfully completed, leading to a high-level description of the Leadership Development Programme, which will be implemented in 2020.

#### Onboarding

A unified onboarding programme for all new staff was established by means of a blended approach with face-to-face sessions delivered by different subject experts, covering both corporate and systems topics. The face-to-face sessions are combined with e-learning modules on the governance, structure and rules of the organisation, and are run on a recurring basis to ensure that new staff acquire the necessary knowledge in a timely and effective way. The programme had a major positive impact on welcoming new members of staff.

# 2.4.3 Establishment plan and headcount

In 2019, eu-LISA's authorised posts comprised the following: 172 Temporary Agents (TAs), 88 Contract Agents (CAs) and 11 Seconded National Experts (SNEs), for a total of 271 authorised posts.

The number of posts in the establishment plan increased by 36 in comparison with 2018. Annex IV shows the 2019 Establishment Plan. The number of CA posts increased by 47, from 41 to 88 posts, owing to the budget authorisation for the new tasks entrusted to the Agency. The number of SNE posts increased by 2, from 9 to 11 posts.

In 2019, the occupancy rate was 89.5 % for the establishment plan headcount and 92.4 % including issued job offers. The occupancy rate for all types of posts was 82.3 % and 85.6 %, respectively. This level of occupancy was achieved because recruitment for the posts authorised in the establishment plan and budget 2020 could be performed only after the adoption of the new regulations (establishing regulation, ETIAS, interoperability, SIS recasts), and in a relatively short timeframe by a small number of HR officers. Additionally, the recast of the Eurodac, for which eu-LISA's establishment plan was increased by two posts, was not adopted in 2019, which had a negative impact on the occupancy rate.

In terms of headcount, at the end of December 2019, eu-LISA had 223 full-time staff members: 154 TAs, 61 CAs and 8 SNEs. Four interns were offered internships at the Agency. Table 12 shows the number of staff members per type of contract, divided between Agency sites.

31 December 2019	TA	CA	SNE	TOTAL
Tallinn	45	23	5	73
Strasbourg	109	36	2	147
Brussels	0	2	1	3
TOTAL	154	61	8	223

Table 12: Distribution of staff by sites and types of contract

One third of the staff has been employed at the Agency's Headquarters in Tallinn and two thirds at its technical site in Strasbourg (Figure 20). The Liaison Office in Brussels represents 1% of the Agency's staff. Three interns are based in Tallinn and one intern is based in Brussels.

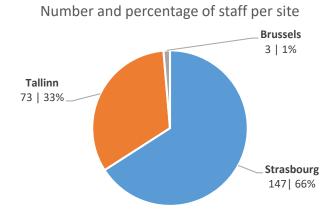


Figure 20: Distribution of staff between the sites (number and share of total staff)

Agency staff were made up of 21 nationalities. Women constituted 29 % of agency staff (65), while 71 % (158) were men. This shows a notable improvement (6 %) in the gender balance in comparison with 2018.

#### Organisational structure

In 2018, the Management Board adopted a proposal for the new organisational structure in anticipation of the growth of the Agency, due to the increased tasks following adoption of new Regulations and the additional staff granted to perform them. As part of the eu-LISA 2.0 programme, the Agency concluded a change in its organisational structure on 1 September 2019, eu-LISA's organisational chart showing the status on 31 December 2019 is presented in Annex III.

## Performance indicators in the area of HR

The Agency set key performance indicators (KPIs) for areas related to Human Resource Management, which are used to measure the rate of absenteeism, staff turnover, the staff performance index and staff engagement.

The absenteeism rate was 23 %, achieving the target of below 25 %. The attrition rate was 3.14%, due to seven employees leaving the organisation in 2019. This is below the turnover target of 5 %. The Tallinn headquarters was more strongly affected as the staff turnover reached 5.26 %. The staff performance index reached 99 % of completed appraisals, a few delays being caused by staff members who were on long-term absence due to medical reasons. All appraisal results were positive.

Staff engagement was measured by evaluating the percentage of staff responding to the 360 degree Evaluation Survey as a follow-up to the 2018 Staff Engagement Survey. The response rate was 88 % with a target value of 80 %.

#### Compensatory leave schemes

The Agency is required, under paragraph 28 of the Parliament's Discharge Report '2011 Discharge: performance, financial management and control of EU agencies', <sup>47</sup> to report on the number of days of leave authorised to each grade under the flexitime and compensatory leave schemes.

Flexitime is a default working pattern applied by analogy at eu-LISA in accordance with the Implementing Rules on Working Time.<sup>48</sup> The Agency has a mandate to provide its services to Member States on a continuous basis (24/7); this means that some staff work in shifts or on stand-by duty. Interventions on the IT systems managed by the Agency from time to time require that the work be performed outside regular office hours, including at night or on public holidays. Therefore, compensation for overtime worked under flexitime or during stand-by duty interventions is an inherent feature in the operation of the organisation.

Figure 21 shows the total number of days of compensatory leave for overtime (CO), interventions during stand-by duty (SBD) and flexitime (FT) per eu-LISA site.<sup>49</sup>

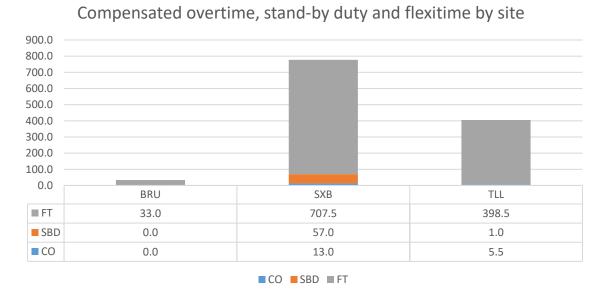


Figure 21: Number of days of flexitime, stand-by duty and overtime compensation in 2019, per site

Table 13 shows the number of days' leave granted as compensation for overtime, broken down by function group, grade of staff member, and the average number of days of those compensated.

Function group and grade	Compensated overtime	Compensated stand-by-duty	Compensated flexitime
AD <sub>5</sub>	0.5	0.0	113.0
AD6	0.0	0.0	23.5
AD <sub>7</sub>	2.0	0.0	258.5
AD8	0.0	0.0	94.5
AD9	2.0	0.0	75.5
AD10	3.0	0.0	53.0
AD11	0.0	0.0	3.0
AD12	1.0	0.0	0.0
AD13	0.0	0.0	0.0

<sup>47</sup> P7\_TA(2013) 0134.

<sup>48</sup> Commission decision on Working Time of 15 April 2015, C(2014) 2502 adopted by the Management Board of eu-LISA on 15 April 2015.

<sup>49</sup> BRU stands for Brussels, SXB stands for Strasbourg and TLL stands for Tallinn.

AD14	0.0	0.0	0.0
AD15	1.0	0.0	0.0
AD16	0.0	0.0	0.0
AST1	0.0	0.0	0.0
AST <sub>2</sub>	0.0	0.0	0.0
AST <sub>3</sub>	0.0	0.0	18.5
AST4	0.0	0.0	10.5
AST <sub>5</sub>	4.0	0.0	54.5
AST6	0.0	0.0	11.0
AST <sub>7</sub>	0.0	0.0	32.5
AST8	0.0	0.0	43.5
AST <sub>9</sub>	0.0	0.0	4.0
AST10	0.0	0.0	0.0
AST11	0.0	0.0	0.0
Total number of days	13.5	0.0	795⋅5
Number of people	11	o	109
Average number of days on leave	1.23	o	7.30
GFIII09	1.0	0.0	40.0
GFIII10	0.0	0.0	17.0
GFIV <sub>13</sub>	0.0	0.0	12.5
GFIV14	0.0	0.0	108.5
GFIV15	4.0	0.0	39.5
GFIV16	0.0	0.0	51.0
GFIV17	0.0	0.0	4.0
GFIV18	0.0	0.0	3.0
Total number of days	5.0	0.0	275.5
Number of people	2.0	0.0	52.0
Average number of days on leave	2.50	o	5.30
SNE	0.0	58.0	68.0
Total number of days	0.0	58.0	68
Number of people	0	4	10
Average number of days on leave	6.80	14.50	6.80
TOTAL number of days	18.5	58.0	1139.0
TOTAL number of people	13.0	4.0	171.0
Overall average	1.42	14.50	6.66

Table 13: Compensatory leave breakdown per type of leave and grade of staff

# Description of the results of the screening/benchmarking exercise

In accordance with the requirements of the Framework Financial Regulation (FFR) and the methodology agreed by the Heads of Administration of the European Agencies, eu-LISA performed its annual benchmarking exercise to identify the ratio of administrative to operational staff.

The Agency considers that a 'healthy' ratio should remain at a level of approximately 70 % of operational posts and 20 % for administrative support and coordination posts (10 % being neutral).

The results of the 2019 benchmarking show a slight decrease (0.6 %) in the percentage of operational posts (from 73 % to 72.4 %) due to the reorganisation exercise, in which several additional operational posts added to its establishment plan were allocated to horizontal functions. At the same time and for the same reason, a percentage of administrative and coordination posts slightly increased by the same figure (0.6 %) from 16 % to 16.6 %. The percentage of neutral posts remained at the same level.

A further breakdown of the type of posts into categories shows that in operational posts there was a slight increase in the percentage of general operational posts (from 59 % to 62.6 %), while programme management and top level coordination posts decreased (respectively from 6 % to 3.1 % and from 8 % to 6.7 %).

The ratio of administrative support-type posts and operational-type posts applied to external support, which was almost equal last year (47.5% and 48.5%, respectively), shows a remarkable change. More administrative-support and coordination services were outsourced, increasing from 47.5% to 51.2%, while for operational activities this decreased from 48.5% to 43.5%. The share of neutral posts in external services increased from 4% to 5.2%.

The tables in Annex IV show the results of the 2019 screening exercise and provide a comparison of the results of benchmarking exercises undertaken by eu-LISA in 2018 and 2019 for both staff members and on-site contractors.

# 2.5 Assessment of audit and ex post evaluation results

# 2.5.1 Internal Audit Service (IAS)

Audit of eu-LISA's Staff Recruitment, Management and Engagement of Structural Service Providers (SSPs) and Organisational Ethics

The objective of the audit was to assess the adequacy of the internal control systems put in place by eu-LISA for (1) staff selection and recruitment, (2) the management of structural service providers and (3) organisational ethics. The scope of the audit covered the following areas, processes and activities in 2018 and 2019.

- The selection and recruitment procedures and tools that are in place, including all recruitment-related policies
  and the completion of assessments such as the competency gap analysis that have an impact on recruitment
  decisions.
- The operational contract management of SSPs (financial contract management is out of scope), including the planning process and the procedures governing the effective use of the SSPs (as indicated in the framework and specific contracts for hiring SSPs). Such procedures may include the use of management tools such as timesheets that support the invoicing of SSP services and their effective monitoring by management. Procurement procedures relating to the hiring of SSPs are not within scope.
- The ethical framework, the policies and procedures that are in place and their application.

Preliminary interviews took place at the Agency's headquarters in June 2019. Fieldwork visits took place at the headquarters and at the technical site in September 2019.

IAS delivered an audit conclusion and identified two 'very important' issues in the area of (1) human resource planning and (2) legal assessment on the use of structural service providers.

The Agency, in agreement with IAS, will put in place an action plan addressing the audit findings and recommendations.

# 2.5.2 Internal Audit Capability (IAC)

Summary of the internal audits conducted by the IAC.

# Report on the IAC's contribution to the revision of the functional descriptions of the units and departments and operational model of the Agency<sup>50</sup>

The objective was to support and advise the Human Resources Unit in the implementation of a new organisational structure at eu-LISA.

This included the revision of the functional descriptions of the units and departments and operational model of the Agency (work stream #3).

IAC delivered the following results:

- A contribution to the functional descriptions of the sectors for the Programme and Project Delivery Unit.
- A contribution to the functional description of the Governance and Capabilities Unit.
- A contribution on planning to the definition of critical processes.
- A contribution on contract management to the definition of critical processes.
- Advice to management on the draft new organisational structure.

# Report on the IAC's contribution to the deployment of eu-LISA's revised Internal Control Framework (Topic#2)51

The objective was to facilitate the deployment of the revised Internal Control Framework at eu-LISA (ICF) in line with the requirements stated in the MB decision.

In the scope of the engagement were the following:

- To identify and validate the Internal Control Monitoring Criteria with eu-LISA business units, including performance indicators and the baselines.
- To raise awareness of the principles, characteristics and practical implementation of the ICF across the Agency.
- To provide advice on the governance of ICF.
- To contribute to the preparation of the ED's Decision on the Adoption of Internal Control Monitoring Criteria and the temporary appointment of the Manager in charge of Risk Management and Internal Control (MRMIC).

## IAC delivered the following results:

- Internal Control Monitoring Criteria identified and validated with eu-LISA management, including performance indicators and the baselines.
- Management awareness raised regarding internal control principles and characteristics of the ICF.
- Support provided to the Executive Director on making the decision to appoint a Manager in charge of Risk Management and Internal Control (MRMIC), together with task definition and cooperation requirements.
- Support provided to the Executive Director on making the decision adopting the Internal Control Monitoring Criteria (including performance indicators and the baselines).

# 2.5.3 European Court of Auditors (ECA)

The European Court of Auditors carried out the usual audit on eu-LISA's Annual Accounts for the financial year 2019.

<sup>50</sup> IAC Report, ref. Ares(2019)7399609 - 02/12/2019.

<sup>51</sup> IAC Report, Ref. Ares(2020)1058524 - 19/02/2020.

The Court audited the following:

- a) The annual accounts of the Agency, which comprise the financial statements<sup>52</sup> and the reports on the implementation of the budget<sup>53</sup> for the financial year ended 31 December 2019.
- b) The legality and regularity of the transactions underlying those accounts.

## Opinion on the reliability of the accounts

In the Court's opinion, the annual accounts of the Agency present fairly, in all material respects, the financial position of the Agency at 31 December 2019, the results of its operations, its cash flows and the changes in net assets for the year then ended, in accordance with its Financial Regulation and with the accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

# Opinion on the legality and regularity of the transactions underlying the accounts

In the Court's opinion, the revenues and payments underlying the annual accounts for the year ended 31 December 2019 are legal and regular in all material respects.

The Court made three preliminary<sup>54</sup> observations, which do not call the Court's opinion into question. Two observations were on the legality and regularity of transactions and one on budgetary management.

# 2.6 Follow-up of recommendations and action plans for audits

The implementation rate of audit recommendations (KPI 24) for the year 2019<sup>55</sup> is 62 % (i.e. 21 recommendations implemented and 34 recommendations pending).

To confirm closure (see header 'closed' in the summary, Table 14), the IAC $^{56}$  and IAS $^{57}$  carried out the annual follow-up to those action plans declared as 'implemented' (i.e. auditor's assessment of evidence provided and collected). The ECA also followed up observations it had issued in previous audits $^{58}$ .

The status of audit recommendations on 31 December 2019 is summarised in Table 14.

Table 14: Status of implementation of audit recommendations

IAS, IAC and ECA recommendations by rating	Total open for 2019	In progress	Implemented	Past due	Closed in 2019	Total open at the end of 2019
Critical	0	0	0	0	0	0
Very important	36	10	16	10	13	23
Important	12	4	5	3	3	9
Total	48	14	21	13	16	32

#### Notes:

For monitoring purposes, recommendations issued by ECA are rated as 'Very important'

<sup>52</sup> These include the balance sheet and the statement of financial performance, the cash-flow table, the statement of changes in net assets and a summary of the significant accounting policies and other explanatory notes.

These comprise the budgetary outturn account and the annex to the budgetary outturn account.

The observations are preliminary at the time of writing this report. The Court and the Agency possibly need to agree on the final text prior to official publication of the audit report, which is planned for Q4 2020.

<sup>55</sup> IAC Report to the Management Board on the status of implementation of audit recommendations as at 31 December 2019, ref. 2020-055.

<sup>56</sup> Follow-up results for the year 2019 – IAC Memo, ref. Ares(2020) 1230716 - 27/02/2020.

<sup>7</sup> IAS Note on the Follow-up of one outstanding audit recommendation, ref. Ares(2020)1778243 - 26/03/2020.

<sup>58</sup> ECA Annual Report on EU Agencies for the financial year 2018, paragraph 3.26. European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice (eu-LISA), Annex - page 221.

In progress: Implementation proceeds according to plan. Deadline not due or new action plan / deadline agreed

with the auditor.

Implemented: This is an assertion by the recommendation owner. The issue is ready for the auditor's follow-up

with a view to closure.

Past due: Implementation of the recommendation is in progress but was not achieved by the agreed

deadline.

**Closed**: The auditor has formally closed the issue.

Critical: Fundamental weakness in the audited process that is detrimental at the entity level.

**Very important:** Fundamental weakness in the audited process that is detrimental to the whole process.

Important: Significant weakness in the whole audited process or fundamental weakness in a significant part of

the audited process.

## Open, significantly delayed, very important and important recommendations - IAS59

- Recommendation 2.3: Human Resource (HR) planning and allocation (sub-action: ascertain implementation of Allegro project) (Very Important).

- Recommendation 1: Procurement procedures definition and formalisation of controls (Very Important).
- Recommendation 2: Estimation of contract value, financial offer and related controls (Very Important).
- Recommendation 3: Controls before establishing specific contracts (Important).
- Recommendation 4: External support in the procurement process (Important).

## Open, significantly delayed, very important and important recommendations - IAC<sup>60</sup>

- Recommendation #2015100924 Definition and organisation of Contract Management (Very Important).
- Recommendation #2018090562 IT Asset Management governance (Very Important).
- Recommendation #2018090563 Reception of assets and warehousing (Very Important).
- Recommendation #2018090564 Staff responsibilities related to IT Asset Management (Very Important).
- Recommendation #2018090565 Capacity to operate ABAC Assets (Very Important).
- Recommendation #2018090566 Information flow and compliance with decommissioning procedure (Very Important).
- Recommendation #2018090567 Configuration Management and Software Register in Operations Department (Very Important).
- Recommendation #2018090569 Handling of goods from delivery point to warehouse (Very Important).
- Recommendation #2018090570 Hands-on maintenance procedure at business continuity site in SJP (Important).

The Agency will keep IAS and IAC informed about progress with implementing these action plans. The Agency will take firm and urgent actions to address the delayed recommendations, including providing revised target implementation dates.

# 2.7 Follow-up of observations from the discharge authority

## **Budget and financial management**

1. The Discharge Authority notes that budget-monitoring efforts during the financial year 2018 resulted in a budget implementation rate of 75.18 %; observes that the low implementation rate is due to outstanding commitments, mainly

<sup>59</sup> Report on significantly delayed, very important and important Internal Audit Service recommendations 2019, ref. Ares(2020)1714318 - 23/03/2020.

<sup>60</sup> Follow-up results for the year 2019 – IAC Memo, ref. Ares(2020) 1230716 - 27/02/2020.

related to operational expenditure, which is subject to adoption of their legal basis; notes furthermore that the payment appropriations execution rate was 94.08 %, representing an increase of 2.55 % compared with 2017.

The eu-LISA establishing regulation requires the Agency to adjust its budget to reflect the level of subsidy approved in the EU general budget. The inscription of resources in the Agency's budget for legislation not yet adopted introduces significant risks to sound financial management; such risks have been systematically reported to the Management Board. The Agency has been advocating the adoption of a more elastic approach to the planning of financial resources related to new tasks, as well as for timelier and coordinated consultation in the preparation of the legislative financial statements.

2. The Discharge Authority notes that the Agency submitted statements of defence to the Court of First Instance in Strasbourg on 15 May 2018 and on 15 February 2019, and that the decision of the Court of First Instance has not yet issued; it notes furthermore that talks aimed at reaching an out-of-court settlement were restarted in April 2019; it calls on the Agency to inform the Discharge Authority without delay in the event that an out-of-court settlement is reached or, alternatively, as soon as the judgement of the Court of First Instance is issued.

The Agency takes note of the observations of the Discharge Authority. The Agency highlights the fact that the settlement discussions initiated in April 2019 have not led to an out-of-court settlement. In this context, on 12 November 2019, eu-LISA requested the schedule of hearings for the two ongoing proceedings before the Administrative Court of Strasbourg (financial claim and judicial take-over claim). Subsequently, the Administrative Court informed the parties about the possibility of submitting a reply or new documents, due, in particular, to a modification of the elements of both cases. Thus, between December 2019 and April 2020, a second exchange of pleadings took place in both cases.

On 20 May 2020, the Administrative Court set a possible hearing date for the above cases, and the Court confirmed that the pre-trial phases were over for both proceedings.

The Agency undertakes to inform the discharge authority immediately as soon as the judgment at first instance of the Administrative Court is issued.

3. The Discharge Authority notes with concern that, according to the Court's report, the Agency's budget implementation rate was less than planned because of the late adoption or entry into force of legal acts (a matter which is outside the Agency's control), affecting both the evolution and the development of existing and new systems; notes that, in response, the Agency returned to the Commission EUR 74 000 000 in payment appropriations and carried forward EUR 49 000 000 of commitment appropriations, thereby calling into question the planning assumptions contained in the legislative financial statements prepared by the Commission; highlights the fact that the inscription of budgetary resources in the Agency's voted budget in respect of legal acts not yet adopted introduces significant risks to sound financial management; calls on the Commission, together with the Agency, to improve the alignment of budgetary planning with the timing of adoption or entry into force of legal acts.

As highlighted under observation No 1, the eu-LISA establishing regulation requires the Agency to adjust its budget to reflect the level of subsidy approved in the EU general budget. The inscription of resources in the Agency's budget for legislation not yet adopted introduces significant risks to sound financial management; such risks have been systematically reported to the Management Board. The Agency has been advocating the adoption of a more elastic approach to the planning of financial resources related to new tasks, and for timelier and coordinated consultation in the preparation of the legislative financial statements.

# **Performance**

6. The Discharge Authority notes, in light of the observations and comments made in 2018 by the Discharge Authority, that the Agency manages three separate, non-integrated, large-scale IT systems in accordance with the respective legal instruments governing those systems, and that the different development timelines and constraints stemming from these legal frameworks have caused the IT systems to be built separately and in a non-integrated way; notes that the

Agency recognises that this approach is neither sustainable nor efficient from an operational or budgetary perspective; welcomes the fact that the Agency has begun an initiative to streamline system architecture and design with the Commission's interoperability initiative as the main driver; encourages the Agency to further explore the possibilities of establishing common procedures and shared systems.

The Agency, in its drive to pursue efficiency and economies of scale, prepared for a radical departure from the sourcing model described in the observation. These preparations resulted in the launch of the Transversal Engineering Framework (TEF) tender, which is under evaluation at the time of writing this report (June 2020).

The TEF is expected to deliver a significant increase in efficiency and economies of scale, as well as limit the possibility of a 'vendor lock-in'. As a sourcing model, it also more closely reflects the new organisational structure of the Operations Department.

The TEF tender is organised into four lots:

- Lot 1: generic design, quality assurance and integration support, covering the high-level design of systems and assistance to the Agency with scheduling and quality assurance.
- Lot 2: development provisioning, encompassing the detailed design, development and evolution activities for the core business systems as well as for the shared and reusable components (including interoperability components).
- Lot 3: infrastructure and platforms provisioning.
- Lot 4: test services, addressing testing across all systems.

As a complement to the sourcing vision of the TEF, a second call for tenders will comprise daily operations and corrective maintenance across all systems (Transversal Operational Framework).

7. The Discharge Authority recalls (particularly in view of the fact that the Agency deals with the interoperability of sensitive data) the importance of data management and processing services and the need to internalise these services; highlights in this regard the importance of the protection and confidentiality of such data, and the potential risks that the current external IT services management system involves.

The Agency would like to emphasise that, since the beginning of its establishment, the systems under its management responsibility are operated in a way that does not provide any third-party contractor with access to any production data. In this context the reference to 'external IT services management' is misleading and does not reflect eu-LISA's operational model.

9. The Discharge Authority welcomes the progress made regarding the Court's recommendations from previous years; notes, however, that the Agency still does not publish vacancy notices on the website of the European Personnel Selection Office (EPSO); calls, therefore, on the Agency to take steps to ensure the publication of vacancies through the EPSO website.

From the beginning of 2019, the Agency has published vacancy notices on the EPSO website.

11. The Discharge Authority stresses the importance of providing gender-based data in order to be able to analyse the evolution of the gender balance within the staff of the Agency and its governing bodies.

The gender balance improved between 2018 and 2019, when the percentage of women employed at eu-LISA increased from 22 % to 29 %. Statistics are included in the SPD on an annual basis (Table 15).

31.12.2019	Administrators			Assis		
Gender	TA	CA	SNE	TA	CA	Total
Male	88	27	7	29	7	158
Female	24	15	1	13	12	65
Total	112	42	8	42	19	223

Table 15: Gender balance of Agency staff

# Staff policy

13. The Discharge Authority notes with concern the lack of gender balance on the Management Board (40 men and 6 women).

eu-LISA takes note of this recommendation. Nevertheless, the Agency cannot influence the nominations of the members, alternates, and observers of the Management Board. According to the establishing regulation of the Agency, Member States, Associated Countries and the Commission shall appoint their representatives on the Management Board of eu-LISA.

14. The Discharge Authority notes in light of comments and observations made in 2018 by the Discharge Authority that the Agency acknowledges the significant risks for the continuity of its operations of having a small number of staff; highlights the fact that the Agency has requested additional staff in its programming documents; acknowledges that such staff increase is subject to approval by Parliament and Council, and that the Agency is trying to mitigate the risk through reprioritisation of tasks and speedy recruitment; points out that the current practice of recruiting the staff necessary for the implementation of a legal act only once such legal act is in force implies reliance on existing staff to conduct preparatory measures for the implementation of such legal act, stretching the Agency's core team capabilities and, therefore, carrying the risk of affecting the Agency's performance of its daily activities; calls on the Commission to allow for the front-loading of some of the staff foreseen in a proposal for a legal act in order to allow the Agency to efficiently prepare for the implementation of such legal act.

eu-LISA takes note of this recommendation and confirms that front-loading of staff related to new tasks or the extension of existing tasks assigned to the Agency will substantially improve the organisation's agility and will address some of the major risks related to the increased workload of the Agency's staff.

15. The Discharge Authority notes that, according to the Court's report in relation to one particular recruitment procedure, the Agency's selection committee, to the detriment of the transparency of the procedure, deviated from the published vacancy notice and applied a higher minimum score than that published, for applicants to be placed on the reserve list; notes from the Agency's reply the commitment made to using a more stringent wording in the vacancy notices to be published in the future; welcomes the fact that the Agency has immediately re-adjusted its practice for ongoing procedures, and that the guidelines on recruitment procedures will include the principle that the threshold for the reserve list should be established ex ante; calls on the Agency to ensure that published selection criteria are respected.

The Agency confirms that the practice has been re-adjusted and the wording of the vacancy notices is more stringent to avoid different interpretations.

# Procurement

17. The Discharge Authority notes with concern that, according to the Court's report, two audited payments for the provision of 'corrective maintenance in working order of the Schengen Information System' (MWS) were partly irregular in that the Agency amended one specific contract by increasing monthly maintenance charges without amending the MWS framework contract to provide for the price increase, and subsequently extended that contract by 1.5 months

after the date of expiry of the MWS framework contract; stresses that the additional amount paid in respect of the monthly maintenance and the payment for maintenance after the expiry date of the framework contract are partially irregular; notes the Agency's reply that delays occurred in the launch of the successor framework contract, that additional steps taken during the award process resulted in the requirement to ensure continuity of maintenance for the Schengen Information System in line with the Agency's legal obligations, and that the process of finalising the set of checklists and templates for procurement procedures and the creation of capabilities for planning support of operational activities and underlying procurement is ongoing; calls on the Agency to ensure compliance with public procurement provisions.

The Agency acknowledges the observation. Delays incurred in the launch of the successor framework contract and additional steps taken during the award process resulted in the requirement to ensure the continuous maintenance of the system in line with the Agency's legal obligations. The Agency has already taken steps to mitigate the risk highlighted in the observation by strengthening contract and vendor management capabilities and re-assigning the staff responsible for the preparation and evaluation of the tender to other operational roles.

18. The Discharge Authority notes further that, according to the Court's report, the formula stipulated in the tender specifications for identifying the best-quality offer for the MWS contract was different from the one communicated in the question-and-answers document for bidders, and that other shortcomings in the quality, completeness and consistency of the information provided were identified; notes that the Agency acknowledges the need to improve and document consistency checks and comparability between the tender planning and the actual contracts to allow for ex post assessment (something that is currently not deployed as a function within the procurement process due to lack of human resources); calls on the Agency to strengthen procurement-related internal control.

The Agency acknowledges the observation. Consistency checks and comparability between the tender planning and the actual contracts will be improved and documented to allow for *ex post* assessment.

Ex post assessment is currently not deployed as a function within the procurement process due to the lack of allocated human resources. The Agency has already taken steps to strengthen contract and vendor management capabilities and re-assign staff responsible for the preparation and evaluation of the tender to other operational roles.

The preparation of the successor contract required timely and competent supervision by operational staff entrusted with these responsibilities. Substantial delays in the preparation of the key components of the call for tender resulted in quality issues.

19. The Discharge Authority notes with concern that, according to the Court's report, in the case of a contract for the provision of telecommunications services, the Agency awarded a contract to the sole economic operator who had submitted a tender with the value of the awarded contract amounting to EUR 144 000 as published in the initial contract notice; notes, however, that the financial offer submitted by the operator was EUR 45 700 only, resulting in the award of a contract for an amount exceeding the offer, something which is not in line with public procurement rules; notes the Agency's reply that the financial offer was intended merely as a non-binding scenario for the purpose of tender evaluation and the actual monthly payments are based on actual rendering of services according to the initially offered unit prices; calls on the Agency not to award contracts for prices which exceed tenderers' offers.

The Agency acknowledges the observation. However, the Agency points out that the financial offer was intended as a mere non-binding scenario for the purpose of tender evaluation. The actual monthly payments are based on the actual rendering of the services according to the unit prices initially offered, thus ruling out overspending.

20. The Discharge Authority notes that, according to the Court's report, the Agency extended the duration of a direct contract for the provision of security and reception services from four to six years, increasing the contract value by 73 % (which is not in compliance with the Financial Regulation), thereby making payments executed after the initial period irregular; notes the Agency's reply that the situation occurred under exceptional circumstances which were reported in

a timely manner and analysed in the register of exceptions; acknowledges that decisions were made in order to ensure the continuous provision of security services; calls on the Agency to ensure compliance with public procurement rules.

The Agency acknowledges the observation. The Agency had no alternative but to ensure that security services were not interrupted. The exceptional circumstances requiring the extension of the contract were brought about by confidentiality concerns, potentially jeopardising the regularity of the tender procedure.

The Agency has improved the planning process, constantly monitors the consumption of the framework contract, and is in a timely manner initiating any new calls for tender procedures in order to prevent any irregular extension (beyond a period or value). Under the new contract for security and reception services, no exceptions have taken place.

21. The Discharge Authority welcomes the fact that, in light of comments and observations from the Discharge Authority related to the extensive use of external contractors for the development and maintenance of IT projects, the Agency is working on a sourcing strategy to ensure the best use of its own resources; highlights the fact that the Court has identified a horizontal trend across agencies in the use of external staff hired as IT consultants; stresses that the Agency's dependence on external recruitment in this area needs to be urgently addressed; acknowledges that the decision to allocate sufficient staff resources lies with Parliament and Council as budgetary authorities.

In order to address the observations of the Court, the Agency has prepared a 'sourcing strategy', which reflects the current sourcing options, as well as a legal analysis of the contractual aspects of using external service providers in the countries where the Agency is located.

The desired solution would be to increase the number of staff and decrease the number of external service providers offering services that should be performed by staff members on a long-term basis. The implementation of such a solution would require the coordinated agreement of the Agency's budgetary authorities and the European Commission.

22. The Discharge Authority urges the Agency to explore possibilities for sharing resources on overlapping tasks with other agencies with similar activities; encourages the Agency to start looking for ways of sharing non-expert staff in areas such as ICT and accounting, in particular with the Body of European Regulators for Electronic Communications based in Riga and the European Chemicals Agency based in Helsinki.

The Agency notes the observations of the Discharge Authority. The Agency advises that it already collaborates with other EU Agencies in ICT as part of the ICT Advisory Committee of EU Agencies. The Agency will explore further ways of collaborating with the Body of European Regulators for Electronic Communications and the European Chemicals Agency. However, the Agency points out the lack of ICT staff at its headquarters in Tallinn, where only two staff members are allocated to this function.

# Prevention and management of conflicts of interests and transparency

23. The Discharge Authority regrets, however, that the new model of declaration of interest has not been applied also to the executive leadership; notes with regret that a declaration of absence of conflict of interest is only available for the executive director.

In June 2020, the Agency's Management Board is going to adopt the new rules on Conflict of Interest under Article 110 of the Staff Regulations. These rules will apply to all staff members of the Agency, including its senior management.

The Discharge Authority notes that according to the Agency's reply there is no legal obligation to publish the CVs of the members of its management board; highlights in that respect that the Union agencies should set a model in terms of transparency and calls on the members of the management board to publish their CVs on the Agency's website.

There is no legal obligation for this request and therefore the members/alternates/observers of the Management Board cannot be obliged to provide their CVs for further publication. Nevertheless, the Agency will continue to encourage the representatives of the Management Board to provide their CVs in order to increase the transparency of the group.

24. The Discharge Authority notes, in the light of comments and observations from the Discharge Authority related to open audit recommendations, that the implementation rate of action plans put in place following various audit recommendations had a descending trend in 2018, and that the Agency adopted and deployed the revised internal control framework early in 2019;

notes that the internal audit service has established a strategic audit plan for the period 2019-2021, based on the results of a risk assessment exercise carried out in February 2018 at both the headquarters in Tallinn and the technical site in Strasbourg, covering the Agency's major administrative and operational processes; calls on the Agency to report to the Discharge Authority on the implementation of the audit recommendations.

The Agency continuously monitors and reports on the implementation of audit recommendations. The monitoring report as of 31 December 2019 shows that there were no 'critical' audit recommendations open. The report also shows that 21 audit recommendations were implemented out of the 34 expected, an implementation rate of 62 %. The result (although still below the set target of 80 %) is a clear improvement compared with the implementation rate of 42 % recorded at the end of 2018. However, in 2020 the Agency took firm and urgent actions aimed at addressing the delayed recommendations, including providing revised target implementation dates. The Agency is confident that it will maintain the positive trend and will implement all outstanding recommendations without further delay.

#### Other comments

26. The Discharge Authority calls on the Agency to focus on disseminating the results of its research to the public, and to reach out to the public via social media and other media outlets.

The Agency has published several research-related reports via its corporate website and made notable efforts in reaching out to the public via social media channels.

Given the sensitivity of some of the research findings, not all reports can be made publicly available but the Agency has disseminated all the reports that contain public information about research findings. They are the following:

- Eurodac Multispectral Imaging (MSI) Optical Test Study Report.
- Distributed Ledger Technologies and Blockchain: Key Findings.
- Elaboration of a Future Architecture for Interoperable IT Systems at eu-LISA.
- Report of the Working Group on ICT Solutions for External Borders (sea/land).

The Agency has focused proactively on efforts to share highlights and provide for transparency via social media channels, which all show considerable growth of the audiences (+33 % on Twitter, +58 % on Facebook, +99 % on LinkedIn, +125 % on YouTube). The Agency also started working on new online awareness-raising outlets with the aim of reaching out to even wider audiences and providing visibility for the tasks and responsibilities of the Agency.

# 2.8 Assessment by management

The management of the Agency has reasonable assurance that appropriate internal controls are in place and that they are functioning as intended; throughout the year, major risks were appropriately identified and managed. This assurance is further confirmed by the results of the internal and external audits performed throughout the year.

# 2.9 External evaluations

In accordance with eu-LISA's establishing regulation, the Commission carried out the first evaluation of the Agency within three years of the start of its operations, supported by an external contractor. The evaluation was carried out in close cooperation with the MB and the Agency itself. The evaluation was conducted over a period of one year (from March 2015 to March 2016) and covered the period from 1 December 2012 to 30 September 2015.

The evaluation examined the way in which eu-LISA implemented its mandate, as laid down in its establishing regulation, looking at four areas: efficiency, effectiveness, added value and coherence. It also examined the Agency's contribution

to the establishment of a coordinated, effective and coherent IT environment for the management of large-scale IT systems supporting the implementation of JHA policies.

The evaluation came to the conclusion that the Agency effectively fulfils its mandate. On the basis of the evaluation, the Commission, after consulting the Management Board, issued recommendations regarding changes to the establishing regulation of the Agency. These recommendations, together with the opinion of the Management Board, were provided to the European Parliament, the Council and the European Data Protection Supervisor.

On 20 November 2019, the Agency presented the implementation status of the recommendations to the MB, for the period November 2018 to October 2019. Out of 30 recommendations listed, 26 have been implemented, two have been partially implemented (R 4.1a: Activity-based management approach to enhance eu-LISA's planning capabilities and reinforce transparency and accountability, R 3.12: The Agency should continue its commendable efforts to strengthen internal processes and procedures in line with ITIL v3 best practices). Two recommendations are obsolete in the context of the Agency's revised mandate and will not be implemented (R 3.26: The impact of assuming the tasks related to DubliNet on the resources should be formally assessed, R 6.4: The Agency should ensure the adoption of a multi-annual work programme, also to guarantee the alignment of the Agency's activities with the multi-annual strategy in place).

The overall implementation rate of the plan for the reporting period increased from 75 % to 93 %. Table 16 provides a further breakdown of the implementation status by the importance of individual recommendations. The Agency made good progress with further implementation of the plans in the reporting period. Most of the planned activities have been implemented while only two recommendations are partially implemented.

Table 16: Implementation status of the recommendations from the Agency's evaluation

	Critical	Very important	Important	Minor	Total	Share
Implemented	3	5	16	2	26	93 %
Partially implemented	1	_	1	_	2	7 %
No longer relevant	_	_	(1)	(1)	(2)	_
Total	4	5	17	2	28	100 %

# 3 Assessment of the effectiveness of the internal control framework (ICF)

# 3.1 Effectiveness of the ICF

# 3.1.1 Methodology used to assess the effectiveness of the ICF

Internal control is a process that helps an organisation to achieve its objectives and sustain operational and financial performance, respecting rules and regulations, and supports sound decision making, reducing risks to acceptable levels through cost-effective controls. eu-LISA Management Board Decision No 2019-042 of 19 March 2019 requires the Executive Director to implement the internal control principles and characteristics and to put in place an organisational structure and internal control system that is in accordance with the principles and characteristics adopted by the Management Board.

The internal control components at eu-LISA are the control environment, risk assessment, control activities, information and communication and monitoring activities. The five components are interrelated and must be present and function well at all levels of the organisation in order for internal control over operations to be considered effective. The framework further specifies principles for each component and the subsequent characteristics of each principle that are defined to take into account the specific governance arrangements in the Agency. The internal control principles and characteristics set out constitute the minimum standards referred to in Article 44(2) of the eu-LISA Financial Regulation.

The Executive Director appointed the Head of Governance and Capabilities Unit to serve as an interim Manager in charge of Risk Management and Internal Control (MRMIC) to support him with the setting up, monitoring, implementation, assessment and reporting on the Internal Control Framework. The Executive Director is mandated to conduct an overall assessment of the efficiency of eu-LISA's Internal Control Framework annually. The first such annual assessment took place in Q1 2020 and provided inputs to the present Consolidated Annual Activity Report on the effectiveness of internal controls at eu-LISA in 2019.

The first annual assessment comprised the establishment of a baseline for each principle, where feasible, assessments at principle and component levels and an overall assessment. The ICF principle baselines and indicators were defined in Annex 2 to the Decision of the Executive Director on the Adoption of Internal Control Monitoring Criteria and the temporary appointment of the MRMIC. To make the assessment, MRMIC and the Internal Control Coordinator at eu-LISA collected and analysed data based on defined monitoring criteria from various data sources in the Agency, including the staff survey, the register of exceptions and non-compliance events, internal and external audit reports, documentation on the development and monitoring of various business processes in the Agency and others.

# 3.1.2 Results of the assessment of effectiveness of the ICF

#### Control environment

The control environment is well established in the Agency. Standards of conduct, processes and structures are in place and have been updated in a timely manner despite the significant recent organisational transformation. The MB, the Executive Director and other managers exercise their roles and responsibilities effectively.

**Principle 1:** eu-LISA demonstrates commitment to integrity and ethical values.

Status: fully implemented

The Agency carried out a number of actions in 2019 to update its internal framework relating to standards of conduct and to ensure that new staff are made aware of them adequately. An internal audit on staff recruitment, the management and engagement of structural service providers and organisational ethics concluded that, within the

challenging context of the Agency's rapid growth, the internal control systems for organisational ethics are adequate overall. The rules on the prevention and management of conflict of interest with regard to eu-LISA staff were amended, and the process of self-declaration by staff was successfully conducted.

**Principle 2:** The MB demonstrates independence from management and exercises oversight of the development and performance of internal control

Status: partially implemented

Processes and procedures are in place for the MB to oversee the Agency's governance and to take overall political responsibility for the management carried out by the ED. With the new implementation of the ICF and the appointment of the MRMIC, the role of the MB relating to risk management and internal control practices will be further strengthened. The role of the ED is well established for the development and performance of internal control. The appointment of the MRMIC will support the ED and from 2020 will provide additional assurance regarding the completeness and reliability of management reporting and the reporting of operational performance. The ED, with the support of the MRMIC, will take further steps to ensure that the ICF is understood and that controls are followed up at all levels, including by heads of department, heads of unit and project managers.

**Principle 3:** With the MB's oversight, Management establishes structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives

Status: partially implemented

The Agency's management structure is well established and was successfully restructured during the organisational transformation in 2019. New units were created and their managers successfully appointed with well-defined roles. Authorities, responsibilities and reporting lines are well established. Contract management and asset management remain areas that require additional efforts to enable the Agency to develop, adopt and implement new processes, procedures and controls.

**Principle 4:** eu-LISA demonstrates a commitment to attract, develop and retain competent individuals commensurate with objectives

Status: implemented

An internal audit report confirmed that during the intense recruitment in 2019, the quality of the related processes was upheld.

**Principle 5:** eu-LISA holds individuals accountable for their internal control responsibilities in the pursuit of objectives **Status:** implemented

Staff appraisal and promotion are carried out following established processes and procedures, involving review groups and offering staff the opportunity to comment or appeal to independent internal or external individuals or entities.

#### Risk assessment

eu-LISA has robust governance mechanisms and procedures for risk identification and assessment. Such measures exist at different levels and are regularly updated and revised.

**Principle 6:** eu-LISA specifies objectives with sufficient clarity to permit the identification and assessment of risks relating to objectives

Status: implemented

Objectives are consistently defined at every level and reviewed regularly. Objectives and performance indicators are defined for all activities listed in the SPD and their achievements are reported in the CAAR. The high number of listed activities makes the planning and reporting activities very costly and would benefit from a revision. The programme and portfolio capability will help to achieve this once implemented. The governance structure for programme and portfolio management was updated with the intake list procedure and the establishment of the Corporate Steering Committee.

**Principle 7:** eu-LISA identifies risks to the achievement of its objectives across the organisation and analyses risks as a basis for determining how the risks should be managed

Status: implemented

Risks are identified for all activities at various levels and at different stages, from planning to execution. Significant activities, in particular large projects, follow the Agency's project management methodology, which requires the regular assessment and monitoring of project risks. For large, new development programmes, risks are reported by the respective Programme Management Boards. Corporate risks are identified and reviewed yearly (see section 3.1.3).

**Principle 8:** eu-LISA considers the potential for fraud in assessing risks to the achievement of objectives **Status:** implemented

The revised anti-fraud strategy 2019-2021 was adopted by the Management Board in March 2019. It includes an action plan and indicators on the achievement of objectives. Details of its implementation are set out in section 3.1.4. The rules on the prevention and management of conflict of interest with regard to eu-LISA staff were amended and a self-declaration process by staff was successfully introduced.

**Principle 9:** eu-LISA identifies and assesses changes that could significantly impact the internal control system **Status:** partially implemented

The risks resulting from the many changes were appropriately taken into account, in particular in operational priorities related to new legislation. Changes were implemented following procedures identified in the governance mechanisms of the different programmes (AG, PMB, MB). The shift from internal control standards to the internal control framework was a significant change, with a risk of discontinuity. The impact of change on internal control was not fully assessed.

#### Control activities

Control activities were carried out at different levels as part of existing processes, procedures and governance mechanisms in the various departments and units.

Controls over IT systems are performed independently for core business systems and for corporate systems. The Agency is paying considerable attention to system security, including business continuity and disaster recovery. Implementing audit recommendations relating to contract management and integrating asset management with configuration management would reinforce the Agency's control over the acquisition and maintenance of systems and their infrastructure.

**Principle 10:** eu-LISA selects and develops control activities that help mitigate risks to the achievement of objectives to acceptable levels

Status: partially implemented

Control activities were carried out. However, they are not integrated into a control, risk and compliance strategy, as this is yet to be developed. The integration of controls into a strategy would also help to assess their effectiveness and their costs and benefits, as required by the Financial Rules.

**Principle 11:** eu-LISA selects and develops general control over technology to support the achievement of objectives **Status:** partially implemented

Controls over IT systems are key activities for the Agency. They are performed independently for core business systems and for corporate systems. The Agency is also paying considerable attention to system security, including business continuity and disaster recovery. Significant audit recommendations have not yet been implemented (e.g. contract management, integration of asset management with configuration management). These processes would reinforce the Agency's control over the acquisition and maintenance of systems and their infrastructure.

**Principle 12:** eu-LISA deploys control activities through corporate policies that establish what is expected, and in procedures that put policies into action

Status: partially implemented

Deviations and requests for overriding controls were reported and recorded in a register through procedures involving several functions and management levels. An analysis and review of the register was presented to the ED and the Management Committee. Impact assessment and evaluations were conducted and their outcomes used to prepare the intake list of projects and the annual work programme.

#### Information and communication

The Agency's information and communication activities are following well-established procedures and processes that support the achievement of broader organisational objectives. These procedures and processes could be mobilised to promote staff awareness of their responsibilities with regard to internal control and foster understanding of related processes and approaches. New processes have been adopted and the Agency is improving its information and document management.

**Principle 13:** eu-LISA obtains or generates and uses relevant quality information to support the functioning of internal control

Status: partially implemented

New processes were adopted and the Agency is improving its information and document management. The implementation of this principle would benefit from the adoption of the control strategy, which could list the data required for the functioning of internal control.

**Principle 14:** eu-LISA internally communicates the information, including objectives and responsibilities for internal control, that is necessary to support the functioning of internal control

Status: partially implemented

A broad range of internal communication activities is in place, conveying messages on objectives and challenges, among others. Communication dedicated to internal control and related elements is not yet operational.

**Principle 15:** eu-LISA communicates with external parties about matters affecting the functioning of internal control **Status:** partially implemented

A broad range of external communication activities is in place, following established strategies and actions plans. Communication dedicated to internal control and related elements is not yet operational.

## Monitoring activities

The Agency conducts continuous and specific assessments of its internal controls, based on self-assessments by staff within their area of responsibility, reporting the activities, the registration of exceptions and non-compliance events, implementation of the anti-fraud strategy and the findings of internal and external audits. The results of these assessments are shared with the relevant management levels and lead to recommendations and action plans for their implementation with specific roles, responsibilities and timelines.

**Principle 16:** eu-LISA selects, develops, and performs ongoing and/or separate assessments to ascertain whether the components of internal control are present and functioning

Status: implemented

The Agency is using independent internal and external entities to regularly assess the effectiveness of governance mechanisms, procedures and processes, including controls. The results of these assessments are shared with the relevant management levels and lead to recommendations and action plans for their implementation with specific roles, responsibilities and timelines.

**Principle 17:** eu-LISA assesses and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including management and the Management Board, as appropriate **Status:** partially implemented

The Agency carried out its first test assessment of the effectiveness of the ICF in 2020.

# 3.1.3 Major corporate risks during the reporting period

Table 17: Major corporate risks

Ranking	Risk description
RISK 1	The measures already taken might not be sufficient to ensure that the sizing of the data centre capacity will enable the Agency to host future systems.  The data centre footprint might be a limitation on hosting additional platforms to support new projects, such as EES and ETIAS, and thus hamper the Agency in executing new activities.  Qualitative Analysis Probability: 3.9  Qualitative Analysis Impact: 2.8  Risk Response: Mitigate
RISK 2	Organisational instability arising from the Agency restructuring.  The reorganisation, while seeking to enhance the Agency's capabilities in dealing with the challenges of the future, creates significant change in the short term that risks creating instability in terms of human resources and organisational processes.  Qualitative Analysis Probability: 3  Qualitative Analysis Impact: 2.9  Risk Response: Mitigate
RISK 3	Threat of significant cost increase of the communication infrastructure.  As the Agency is bound by the DIGIT framework contract, TESTA-ng, there is significant risk of increased costs due to the extension of TESTA-ng, which will soon be negotiated.  This extension is required to bridge the gap with the successor contract, FPEN (Future Pan European Network).  Qualitative Analysis Probability: 2.7  Qualitative Analysis Impact: 3.1  Risk Response: Mitigate

The proper allocation and balancing of resources might be hampered by the lack of personnel, procedures and tools. Also, there is an increasing risk of a discrepancy between the number of statutory staff and activities to be undertaken, which might negatively affect the Agency's work and possibly its business continuity.

Year n-1 budget implementation/cancellation of appropriations.

Lack of a mature and efficient resource management tool and procedure to cope with the amount of projects. A shortage of resources could lead to activities being significantly delayed and may increase the reworking of the planning.

RISK 4

In addition, according to the financial regulation, the budget should comply with the principle of annuality. The carry-forward of commitment appropriations (via global commitments) for operational expenditures and the carry-over of payment appropriations for administrative expenditure from the previous year's budget (n-1) absorbs the resources (in the form of FTEs) required to implement the current year's budget (n) and increases the risk of cancellation of appropriations.

Qualitative Analysis Probability: 2.9

Qualitative Analysis Impact: 2.8

Risk Response: Mitigate

Potential temporary loss of some external support functions due to the transition to a new framework contract.

RISK 5

The framework contracts under which external support contractors are provided to the Agency will end in the coming 12-month period. The contracts of most contractors end at this time, leading to a likely significant departure of contractors all at the same time. Depending on the arrangements for a future framework contract, there may be a period in which the support services provided by these contractors are not provided. Given the key role played by many (see issue of dependence on non-statutory staff), there is a risk of a significant impact on business continuity.

Qualitative Analysis Probability: 2.9

Qualitative Analysis Impact: 2.5

Risk Response: Mitigate

RISK 6

Accidental exposure of sensitive procurement information that can lead to the creation of competitive advantage and facilitate bid-rigging situations may weaken the Agency's reputation and lead to tender cancellation or *ex post* litigation issues.

Qualitative Analysis Probability: 3.4

Qualitative Analysis Impact: 1.8

Risk Response: Mitigate

RISK 7	the structures and procedures all. The Agency is facing an upcoming have to be accomplished alongside Although the work is different, bot operational management work ut of integrating new staff, training of Qualitative Analysis Probability: 2 Qualitative Analysis Impact:	y future-oriented work and current system maintenance work with ready in place (learning, onboarding, etc.).  I period in which extensive systems development is foreseen. This will be continued dedication to current system maintenance and evolution. It strands will have to be integrated and knowledge obtained through tilised for new systems development. This raises challenges in terms current staff, and adapting to new processes, etc.  2.2  1.8  Mitigate
RISK 8	availability risks that potentially services, e.g. large geographical control over high-level privileged Qualitative Analysis Probability:  Qualitative Analysis Impact:	

The source for the corporate risks for the year 2019 was the annual risk collection and assessment phase, performed by the third quarter of 2018 by eu-LISA's management (management committee members and heads of sector). The risks raised were assessed by the stakeholders by means of qualitative analysis (outcome is average probability and impact) and quantitative analysis, when possible (expected risk value). The corporate risks were discussed and confirmed during the annual corporate risks workshop at the end of 2018 and a risk owner was nominated.

The agreed response plans for the risks identified in 2018 were followed up during 2019 and maintained until the risk was closed.

The annual corporate risks workshop took place on 28 November 2019. It was decided to keep open all the risks identified in 2018, apart from risk 7, which was merged with a risk identified during the 2019 exercise.

# 3.1.4 Report on the implementation of the Action Plan for the Anti-Fraud Strategy<sup>61</sup>

The revised Anti-Fraud Strategy comprises three strategic objectives for the period 2019-2021:

- to reinforce the anti-fraud culture in the Agency;
- to establish and maintain a high level of ethics in line with eu-LISA's activities;
- to develop intelligence for prevention and detection purposes.

The IAC regularly monitored the implementation of the action plan attached to the strategy. The report summarises the responses received from action owners following several meetings between the IAC and action owners. The IAC, based on the assertions of the action owners, performed an assurance procedure and gathered evidence in order to define the status of implementation.

The action plan initially had 12 actions, each aimed at mitigating one or several of the fraud risks identified. The Agency implemented six out of twelve of the actions planned, which gives an implementation rate of 50 %. This result could be

<sup>61</sup> IAC Report, ref. Ares(2020)1109829 - 21/02/2020.

qualified as sufficient for the year 2019. However, intensified efforts are expected from the action owners in the years to come in order to achieve full implementation.

The IAC made the following recommendations to improve the effectiveness of the monitoring.

- Ensure that the data needed for the calculation of performance indicators of the strategy are available.
- In November 2019, during the annual corporate risk management exercise, the Agency identified two new
  potential fraud risks. The action plan should be updated with mitigating actions addressing these two risks
  (already done).
- Due to the complexity of the action plans marked as 'In progress', revised deadlines for the implementation of these action plans are proposed.

# 3.2 Conclusions of the assessment of the effectiveness of the ICF

The findings of the first assessment of the effectiveness of internal control at eu-LISA indicate that the internal control framework of the agency is functioning effectively. At the same time, the intensive implementation timeline of the Agency's key initiatives and related management of substantial financial and human resources will require continuous improvements to the level and effectiveness of controls. In this regard, the Agency would benefit from the explicit and detailed integration of objectives, risks and controls, including the definition of risk appetite at relevant levels to define an appropriate level of controls. Such efforts would help assess the effectiveness of control, the identification of possible gaps and prioritisation of follow-up actions, as well as support staff accountability, and promote transparency in the implementation, monitoring and reporting activities.

# 3.3 Statement of the Manager in charge of Risk Management and Internal Control

I, the undersigned,

Manager in charge of Risk Management and Internal Control within the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA),

In my capacity as Manager in charge of Risk Management and Internal Control,

Declare that, in accordance with the eu-LISA Internal Control Framework, I have reported my advice and recommendations on the overall state of internal control in the Agency to the Executive Director.

I hereby certify that the information provided on the internal control system in the present Annual Activity Report and its annexes is, to the best of my knowledge, accurate, reliable and complete.

Tallinn, 17 June 2020

Anna Platonova

# 4 Management assurance

# 4.1 Review of the elements supporting assurance

The building blocks of assurance underpin the reasonable assurance given by the Authorising Officer in his declaration of assurance in the Annual Activity Report. These are summarised below.

# Building block 1: Assessment by management

#### Assessment by management

The Agency's management is reasonably confident that, overall, suitable controls are in place and are working as intended; risks are being monitored and mitigated appropriately and the necessary improvements and reinforcements are being implemented.

Furthermore, the Agency's management recognises the need to maintain a high level of efficiency in its internal control framework and to pursue the monitoring and assessment of the implementation of the ICF principles and components to ensure the achievement of the objectives set out in the Agency's establishing regulation and Long-term Strategy.

#### Register of exceptions

The Agency has had a procedure in place for the registration of exceptions since 2013. At the beginning of 2015, a formal procedure for the registration and management of exceptions was adopted. Its overall objective is to establish appropriate arrangements to ensure that any exceptional circumstances or significant instances of overriding controls or deviations from the established regulatory framework are thoroughly explained, registered and reported in accordance with the principle of transparency. Any exception must be documented, justified and approved at the appropriate level before any action is taken.

In 2019, 25 exceptions and 8 non-compliance events were registered. A review of the exceptions and non-compliance events register was conducted and submitted to the Authorising Officer in January 2020. The Authorising Officer determined that these exceptions do not require a formal reservation in the declaration of assurance on the basis of materiality. In the light of the implementation of the ICF and drawing from the conclusions of the exceptions register review, the standard operating procedure for exceptions and non-compliance events will be updated in 2020.

## Building block 2: External audit results

#### IAS opinion

In 2019, the Commission's Internal Audit Service (IAS) carried out one assurance audit on the Agency's Staff Recruitment, Management and Engagement of Structural Service Providers (SSPs), and Organisational Ethics. The IAS concluded that, within the challenging context of rapid growth, overall the Agency's recruitment procedures comply with the regulatory frameworks in place, and the internal control systems for managing the selection and recruitment of staff and organisational ethics are adequate. The Agency also manages its structural service providers in compliance with the conditions laid down in the respective framework service contracts. However, major weaknesses still exist with regard to the processes for assessing human resource requirements and the lack of (national) legal assurances regarding the engagement of structural service providers.

# ECA opinion (Preliminary observations with a view to a report on the annual accounts of eu-LISA for the financial year 2019)

# Opinion on the reliability of the accounts

In the Court's opinion, the accounts of the Agency for the year ended 31 December 2019 present fairly, in all material respects, the financial position of the Agency at 31 December 2019, the results of its operations, its cash flows and the

changes in net assets for the year then ended, in accordance with its Financial Regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

# Opinion on the legality and regularity of the transactions underlying the accounts

In the Court's opinion, the transactions underlying the annual accounts for the year ended 31 December 2019 are legal and regular in all material respects.

# Building block 3: Follow-up of reservations from previous reporting periods

The declaration of assurance of the Authorising Officer in the Annual Activity Report 2018 did not contain any reservations.

#### Conclusion

Based on sections 3 and 4 herein, it can be concluded that there are no significant weaknesses in internal controls that might have an impact on the declaration of assurance.

# 4.2 Reservations

Based on the information provided above, the Authorising Officer did not issue any reservation.

# 5 Declaration of assurance

I, the undersigned,

Executive Director of the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA),

In my capacity as Authorising Officer,

Declare that the information contained in this report gives a true and fair view62.

I further state that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, *ex post* controls (the audits of the Internal Audit Service of the European Commission, the audits of the Internal Audit Capability of eu-LISA and the audits of the European Court of Auditors) for the years prior to the year of this declaration.

Confirm that I am no aware of anything not reported here which could harm the interests of the Agency or its stakeholders.

Tallinn, 30 June 202

<sup>62</sup> True and fair in this context means a reliable, complete and correct view of the state of affairs in the Agency.

# Annex I. Corporate key performance indicators

KPI	Corporate key performance indicator	Target	Actual 2019
1	Number of identified critical shortcomings during security tests	0	1
2	Percentage of identified security risks treated by assured security controls	100 %	90 %
3	Eurodac central system availability	Green ≥ 99.99 % 99.99 %> Amber ≥ 99.50 % Red <99.50 %	99·55 % (Amber)
4	Eurodac central system response time	Green ≥ 99.45 % 99.45 %> Amber ≥ 90 % Red < 90 %	99.91 % (Green)
5	Wide Area Network (WAN) availability (for SIS II and VIS systems)	Green >= 99.99 % 99.99 %> Amber ≥ 99.50 % Red <99.50 %	99.9926 % (Green)
6	SIS II central system availability	Green ≥ 99.99 % 99.99 %> Amber ≥ 99.50 % Red <99.50 %	99.95 % (Amber)
7	SIS II central system response time	Green ≥ 99.5 %, 99.5 %> Amber ≥ 99 % Red <99 %	99.84 % (Green)
8	VIS central system availability	Green ≥ 99.99 % 99.99 %> Amber ≥ 99.50 % Red <99.50 %	99.65 % (Amber)
9	VIS central system response time	Green = 100 % 100 %> Amber ≥ 90 % Red <90 %	97.79 % (Amber)
10	Cancellation rate of carried-over payment appropriations	< 5 %	12.7 %
11	Rate (%) of budgetary commitments implementation	95-99 %	98.70 %
12	Rate (%) of payment implementation	> 95 %	99.30 %
1/	Ratio (%) of administrative resources to operational	Administrative: 20 %	16.61 %
14	resources	Operational: 70 %	72.38 %
15	Ratio (%) of payments completed within statutory deadlines	90-100 %	92.8%
16	Average square metres of office space per FTE (m²)	10 m²	11.27 m²
17	eu-LISA training course external participant satisfaction	> 3	4.39
18	Procurement compliance with the Agency's Procurement and Acquisition Plan	0.5-1.5	1.12
19	Procurement project management: % of main procurement projects on schedule	> 60 %	58 %

20	Customer satisfaction: % of MS users satisfied or very satisfied with the overall service provided by the eu-LISA Service Desk	> 80 %	93.40 %
21	Ratio (%) of activities identified in the Annual Work Programme met or on schedule	90 %	82 %
22	Member States' systems service desk performance	> 80 %	90 %
23	Project management: assessing completed projects against defined quality/cost/time parameters	< 10 %	8.57 %
24	Percentage of audit recommendations implemented within stipulated deadlines	80-100 %	62 %
25	Percentage of uncertified vs certified absence days from work within reporting period	< 25 %	30 %
26	Annual percentage staff turnover	≤ 5 %	3.14 %
		Completed appraisals: 100 %	99 %
27	Staff performance index	Low performance: < 5 %	o %
		Top performance: > 10 %	56 %
28	Staff engagement level	≥80%	88 %
		Unique visitors: open	95 570
	External communication: eu-LISA web-based	Average visit duration: open	2.24 minutes
29	visibility	Bounce rate (left after one page): open	41.75 %
		Actions per visit (average): open	3.32

## Notes for the KPIs

[KPI 13] was deleted by a Management Board decision.

#### Security

[KPI 1] The critical issues relate to the timeliness and application of the patching of identified vulnerabilities on the system due to the operational impact of incompatibilities and technical issues. Compensating controls are implemented to minimise the effective exposure of the core business systems to these sorts of vulnerabilities.

[KPI 2] The issues identified in the control implemented to treat the identified risks are reflected in the findings resulting from KPI 1. Corrective action plans have been implemented to address the identified issues.

# Systems availability

[KPI 3, 6, 8] The systems availability target is not precisely defined in the legal instruments governing the systems. The green target of 99.99 % was established by the Agency because systems managed by it are defined as high-availability systems.

#### Response time

[KPI 4] System critical business functions are grouped into two categories: high-priority transactions and normal transactions. The standard response time for high-priority transactions is 1 hour, for normal transactions it is 24 hours. For each category, an indicator is monitored. KPI 4 is the average of the indicator for high-priority transactions and the indicator for normal transactions. The indicator is green if 99.5 % of transactions are within the standard response time, amber if between 90 % and 99.5 % of transactions are within the standard response time, red if fewer than 90 % of transactions are below the standard response time.

[KPI7] Standard queries are split into categories. Category 1 represents all single and multiple queries classified as 'exact', because exact information is provided in search fields. Inexact or fuzzy queries are excluded from category 1. The standard response time for category 1 queries is 1 second. For other queries, the standard response time is 3 seconds. The response time for category 1 queries is the core indicator to assess performance as it is the most representative query. The KPI7 indicator is green if more than 99.5 % category 1 queries have a response time within 1 second, amber if between 99.5 % and 99 % category 1 queries have a response time within 1 second and red if fewer than 99 % category 1 queries have a response time within 1 second.

[KPI 9] The indicator value is the share of total response time within the contractual limits for each business group (asylum, border, consular, law enforcement and territory). There are three contractual limits for the VIS: the peak per hour indicator, the SLA breach indicator and the records indicator. KPI 9 is the result of the calculation for all business groups and all contractual limits. The indicator is green if the value equals 100 %, amber if the value is between 90 % and 100 %, and red if the value is below 90 %.

# Annex II. Statistics on financial management

# Initial budget, transfers and amending budgets

The table below summarises at chapter level the internal budgetary transfers operated by the Agency for C1 funds in 2019 in millions of euros. The Management Board approved one amendment to the budget.

			Commitment appropriations			Payment appropriations			
	Budget Chapter	Initial budget	Transfers	Amending budget	Final budget	Initial budget	Transfers	Amending budget	Final budget
A-11	Salaries & allowances	24.4	-2.8	-2.6	19.1	24.4	-2.8	-2.6	19.1
A-12	Expenditure related to recruitment	1.1	-0.7		0.4	1.1	-0.7		0.4
A-13	Mission Expenses	0.4	0.1		0.6	0.4	0.1		0.6
A-14	Socio-Medical Infrastructure	1.7	-0.1		1.5	1.7	-0.1		1.5
A-15	Training for Staff	0.9			0.9	0.9			0.9
TITLE 1	- STAFF EXPENDITURE	28.5	-3.5	-2.6	22.5	28.5	-3.5	-2.6	22.5
A-20	Expenditure for premises	2.6	-0.9		1.7	2.6	-0.9		1.7
A-21	Corporate IT & Telecom	2.0	1.2		3.2	2.0	1.2		3.2
A-22	Movable Property and Associated Costs	0.2	0.6		0.9	0.2	0.6		0.9
A-23	Current Administrative Expenditure	0.8	-0.0		0.8	0.8	-0.0		0.8
A-24	Postage	0.0	-0.0		0.0	0.0	-0.0		0.0
A-25	Management Board	0.6	-0.3		0.4	0.6	-0.3		0.4
A-26	Information and Publications	1.7	-0.5		1.2	1.7	-0.5		1.2
A-27	External Support Services	3.4	0.1		3.5	3.4	0.1		3.5
A-28	Security	2.7	0.2		2.9	2.7	0.2		2.9
	- INFRASTRUCTURE AND TING EXPENDITURE	14.2	0.4		14.6	14.2	0.4		14.6
В3-о	Infrastructure	37.6	-19.0		18.6	49.8	-1.7	-21.2	26.9
B3-1	Applications	211.5	19.9	-5.7	225.7	107.1	3.7	-42.3	68.5
B <sub>3</sub> -8	Operational support activities	4.8	2.1		6.9	4.4	1.1		5.5
TITLE 3	- OPERATIONAL EXPENDITURE	254.0	3.1	-5.7	251.3	161.4	3.1	-63.5	100.9
TOTAL		296.7	0.0	-8.3	288.4	204.1	0.0	-66.1	138.1

# Implementation of the budget for the year (funding source C1)

As far as the 2019 appropriations (funding source C1) are concerned, the Agency reached a high level of budget implementation of 99.7% in commitments and 99.3% in payment appropriations, taking into consideration the automatic and non-automatic carry-over of commitment appropriations related to new tasks.

	CON	MMITMENTS (C1)	PA	YMENTS (C1)		
BUDGETTITLE	Budgeted (in EUR million)	Consumed (in EUR million)	%	Budgeted (in EUR million)	Consumed (in EUR million)	%
Title 1 – Staff expenditure	22.5	21.5	95.7 %	22.5	21.5	95.7%
of which, executed		21.5	95.7%		21.1	93.7 %
of which, automatic carry- forward		-	-		0.5	2.0 %
Title 2 — Infrastructure and Operating expenditure	14.6	14.6	100.0 %	14.6	14.6	100.0 %
of which, executed		14.6	100.0 %		5.4	36.8 %
of which, automatic carry- forward		-	-		9.2	63.2 %

Title 3 – Operational expenditure	251.3	251.3	100.0 %	100.9	100.9	100.0 %
of which, executed		92.2	36.7%		100.9	100.0%
of which, non-automatic carry-over		159.1	63.3 %			
TOTAL EUR	288.4	287.4	99.7%	138.1	137.1	99.3%
of which, executed		128.4	44.5 %		127.4	92.3 %
of which, automatic carry- forward		-	-		9.7	7.0 %
of which, non-automatic carry-over		159.1	55.2 %			

# Implementation of the budget from other funding sources

In addition to the budget for the year (funding source C1), the Agency implemented appropriations:

- from appropriations carried over to 2019 by an MB decision (funding source C3);
- from internal assigned revenue (funding source C4);
- carry-forward of commitments (differentiated in Title 3 and non-differentiated in Titles 1 and 2 and the corresponding payment appropriations (non-differentiated only) from previous years (funding source C8);
- from external assigned revenue, as a contribution from the associated countries pursuant to Article 46(3)(b) of the establishing regulation (funding source Ro, Title 3 only).

			Commitment			Payment		
	Budget title	Funding Source	Budgeted (in EUR million)	Consumed (in EUR million)	% Commit	Budgeted (in EUR million)	Consumed* (in EUR million)	% Payment
A-1	Staff expenditure	C1	22.5	21.5	95.7 %	22.5	21.1	93.7 %
W-1	Starr experiurtore	C8	0.4	0.4	81.8 %	0.4	0.4	81.8 %
		Subtotal	22.9	21.9	95.5 %	22.9	21.4	93.5 %
	Infrastructure and	C1	14.6	14.6	100.0 %	14.6	5.4	36.8 %
A-2	A-2 Operating Expenditure	C4	0.0	0.0	100.0 %	0.0		
		C8	5.1	4.5	87.8 %	5.1	4.5	87.8 %
		Subtotal	19.8	19.1	96.9 %	19.8	9.9	50.0 %
		C1**	251.3	251.3	100.0 %	100.9	100.9	100.0 %
		C3	49.2	49.2	100.0 %			
Bo a	Bo-3 Operational Expenditure	C4	0.0	0.0	100.0 %	0.0	0.0	100.0 %
D0-3		C8	229.2	224.4	97.9 %			
		Ro	9.4	0.7	7.8 %	9.4	0.4	4.4 %
		Subtotal	539.1	525.6	97.5 %	110.4	101.4	90.1 %
	ALL	TOTAL	581.8	566.6	97.4 %	97.4%	132.7	86.7 %

<sup>\*</sup> For Title 3 C1, EUR 13.6 million was used for payments for commitments for the year. The remainder, amounting to EUR 87.4 million was used to cover commitments from previous years

# **Budgetary transfers**

During 2019, the following internal transfer operations were performed under Article 26 of the Agency's Financial Regulation. The rationale for the transfers was to ensure optimal budget allocation of commitment and payment appropriations.

<sup>\*\*</sup> Commitments consumed include non-automatic carry-over of EUR 159.1 million.

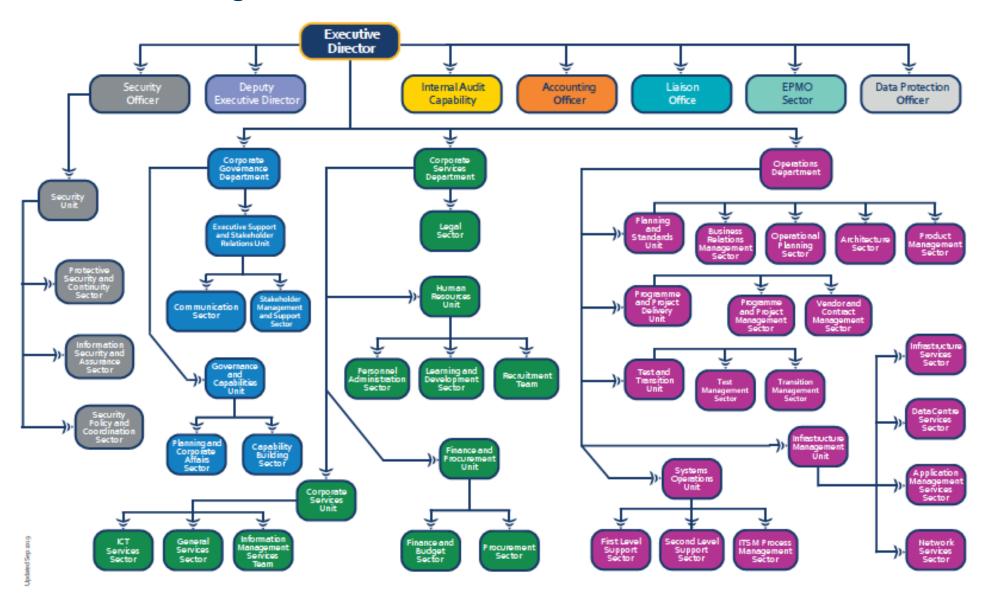
The Agency performed 11 transfers ex article 26.1 of the Agency's financial regulation. The table summarises the budgetary transfers performed in 2019. The majority of transfers were internal to the same budgetary title (as evidenced by a zero value for the operation). Budget transfers between titles are indicated in full value in euros.

Complete details on the transfers are provided in Annex V.

	Budget title	Title 1 — staff expenditures		Title 2 — Infrastructure and operating expenditures		Title 3 — Operational expenditures	
Budgetary transfer	Reference	Commitment appropriation	Payment appropriation	Commitment appropriation	Payment appropriation	Commitment appropriation	Payment appropriation
1	LIS.2384			0	0	0	0
2	LIS.2399			0	0	0	0
3	LIS.2402					0	0
4	LIS.2407			0	0	0	0
5	LIS.2417	-1 000 000	-1 000 000	1 000 000	1 000 000	0	0
6	LIS.2419			0	0	0	0
7	LIS.2421	0	0	0	0	0	0
8	LIS.2443			0	0	0	0
9	LIS.2450			0	0	0	0
10	LIS.2453	-2 498 505	-2 498 505	-551 872	-551 872	3 050 377	3 050 377
11	LIS.2456					0	0
Т	otal	-3 498 505	-3 498 505	448 128	448 128	3 050 377	3 050 377

No transfer under Article 26(2) of the Agency's Financial Regulation was performed.

# Annex III. Organisation chart



# Annex IV. Establishment Plan

# Establishment plan 2019

The eu-LISA 2019 Establishment Plan consisted of 172 posts for temporary agents.

Category and grade	Temporary agents
AD 16	0
AD 15	1
AD 14	1
AD 13	3
AD 12	4
AD 11	5
AD 10	8
AD 9	16
AD 8	17
AD 7	31
AD6	14
AD 5	29
Total AD	129
AST 11	0
AST 10	0
AST 9	1
AST 8	2
AST <sub>7</sub>	4
AST 6	9
AST <sub>5</sub>	12
AST 4	12
AST <sub>3</sub>	3
AST 2	0
AST 1	0
Total AST	43
Total Establishment Plan	172

# Information on entry level for each type of post: indicative table

The table below presents the levels at which the key functions listed by the European Commission are represented in eu-LISA. The job titles used in the Agency are listed in case of differences between the Commission's and the Agency's terminology. It should be noted that the entry grades that are higher than the ones mentioned in Article 53 of the Conditions of Employment of Other Servants of the European Union are due to the recruitment organised during the start-up phase of the Agency when higher grades were allocated in eu-LISA's Establishment Plan.

<b>Key functions (</b> examples — terminology should be adjusted to each A gency's job titles)	Type of contract (official, TA or CA)	Function group (FG), grade of recruitment (or bottom of the brackets if published in brackets)	Indication of whether the function is dedicated to administrative support or operations (subject to definitions used in screening methodology)
Head of Department — level 2	TA	AD 12	Administration/operations
Head of Unit — level 3	TA	AD 9, AD 10	Administration/operations
Head of Sector — level 4	TA, CA	AD 5, AD 7, AD 8, AD 9, AD 10, FG IV	Administration/operations
Senior Officer	TA	AD 8, AD 9	Administration/operations
Officer	TA, CA	AD 6, AD 7, AD 8, FG IV	Administration/operations
Junior Officer	TA, CA	AD 5, FG IV	Administration/operations
Senior Assistant	n/a	n/a	n/a
Junior Assistant	TA, CA	AST 3, FG III	Administration/operations
Head of Corporate Services Department	TA	AD 12	Administration
Head of Human Resources Unit	TA	AD 9	Administration
Head of Finance and Procurement Unit	TA	AD 10	Neutral
Head of IT	n/a	n/a	n/a
Secretary <sup>63</sup> /Assistant	TA, CA	AST 3, FG III	Administration/operations
Mail Clerk	n/a	n/a	n/a
Webmaster-Editor	n/a	n/a	n/a
Data Protection Officer	TA	AD 8	Administration
Accounting Officer	TA	AD 9	Neutral
Head of Internal Audit Capability	TA	AD 9	Administration/neutral
Personal Assistant to the Executive Director <sup>64</sup>	TA	AST 5	Administration

# Benchmarking exercise

At the end of 2019, eu-LISA conducted its benchmarking exercise in accordance with the methodology agreed by the Heads of Administration of the European Agencies in 2014. This methodology has been devised by adapting, refining and elaborating the Commission's screening methodology. The screening categorises the Agencies' human resources

<sup>63</sup> The eu-LISA Establishment Plan does not include posts for secretaries or clerical functions. With the entry into force of the new Staff Regulations on 1 January 2014, eu-LISA decided to keep the grades approved in the Establishment Plan and to augment the tasks of the staff hired at grades AST 2 and AST 3 for the assistants in a particular field (HR, IT etc.) or the Administrative Assistants. At the same time, when necessary, external service providers (*intra muros*) perform the secretarial work.

This entry grade was established at the creation of the Agency in 2012.

by the organisational role each job is serving. The main focus of this exercise is to generate figures for the number of 'administrative support and coordination', 'operational' and 'neutral' jobs in all organisational entities, in order to compare the results with previous years. The screening was applied to all eu-LISA posts. The results of this screening are presented in the tables below.

Results of the eu-LISA benchmarking exercise in 2019 - staff members

Job type (sub)category	2018 (%)	2019 (%)
Administrative support and coordination	16	16.6
Administrative support	12.5	11.5
Coordination	3.5	5.1
Operational	73	72.4
General operational	59	62.6
Programme management	6	3.1
Top-level operational coordination	8	6.7
Evaluation and impact assessment	0	0
Neutral	11	11
Finance	11	11
Control	n/a	n/a

The Agency also screened the posts occupied by external service providers (the on-site contractors' personnel), with the following results.

Results of the eu-LISA benchmarking exercise in 2019 – external service (on-site contractors)

Job type (sub)category	2018 (%)	2019 (%)
Administrative support and coordination	47.5	51.2
Administrative support	44.5	47.8
Coordination	3	3.4
Operational	48.5	43.5
General operational	41	36.3
Programme management	3	2.9
Top-level operational coordination	2.5	2.4
Evaluation and impact assessment	2	1.8
Neutral	4	5.2
Finance	4	5.2
Control	n/a	n/a

A more detailed report on the allocation of human resources to activities will be possible in future once the activity-based reporting system is implemented.

# Annex V. Human and financial resources by activity

#### Human resources

In 2019, out of a total of 223 FTEs (full-time equivalents) available, 157.85 FTEs (70.8 % of staff) were used for operational activities and 23.85 FTEs (10.7 % of staff) for related procurement and financial activities. 41.3 FTEs (18.5 % of staff) were used for horizontal activities (general coordination and administrative support). Due to the structure of the Agency's activities, most of which are not repetitive, a further breakdown cannot be given at the time of writing.

## Expenditure according to Activity-Based Costing

In 2018, eu-LISA developed an Activity-Based Costing methodology, allowing it to identify the total costs of each system managed by the Agency.

The total system expenditure consists of:

- direct expenditure, covering maintenance and project costs;
- network expenditure;
- horizontal expenditure, including operational costs for shared infrastructure, system security and corporate and horizontal expenditure, mainly staff and running expenditure.

The re-allocation of corporate and operational horizontal expenditure is based on the following cost drivers:

- direct system expenditure;
- time (cost of manpower) allocated to the systems.

During the reporting year, the Agency implemented a budget of EUR 128.4 million, of which:

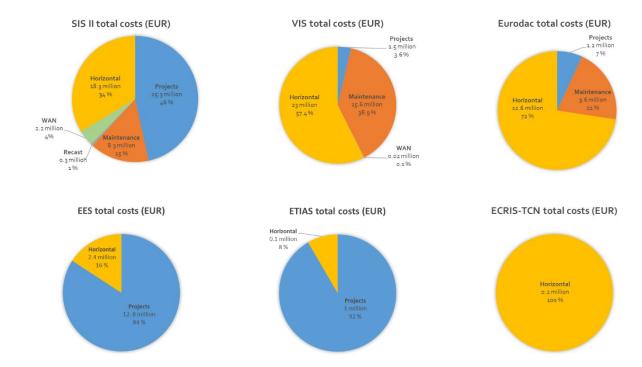
- 72 % was spent on operational expenditure (56 % direct expenditure on the systems and 16 % operational horizontal costs);
- 28 % represented corporate horizontal costs.

The total system costs are summarised in the table below:

Systems	Total costs (in EUR million)	Share of total costs
SIS II	54.3	42 %
VIS/BMS	40.0	31 %
Eurodac	17.4	14 %
EES	15.2	12 %
ETIAS	1.1	0.8 %
ECRIS-TCN	0.2	0.2 %
TOTAL	128.4	100 %

It should be noted that most of the Agency's core activities are not repetitive but project-based. Therefore, their costs cannot be standardised as in a standard process-based business model.

The following graphs provide the cost breakdown for each system in EUR million and as a percentage of the total cost of the systems:



## Expenditure related to the multi-site organisation

In line with the external evaluation recommendation (R 4.34), the direct costs associated with the Agency's multi-site organisation are summarised in the table below.

Share of 2019 direct costs associated with the Agency's multi-site organisation (in EUR million)

Budge	et title	Total payments	Payments related to the Agency's multi-site organisation	Share (%)
Aoı	Staff Expenditure	21.075	0.264	1.25 %
A02	Infrastructure and Operating Expenditure	5.392	n/a	n/a
Bo <sub>3</sub>	Operational Expenditure	100.944	0.136	0.14 %
Total		127.411	0.400	0.31 %

Direct costs related to the Agency's multi-site organisation are mission expenditure for statutory staff travelling between the Agency's headquarters in Tallinn and the Agency's technical site in Strasbourg. In 2019, this represented 0.31 % of the total of payments executed.

## Detailed list of budgetary transfers

	BUDGETARY TRANSFERS in 2019									
Budgetary transfer No.	Reference	Date	Budget line	Commitment appropriation	Payment appropriation					
			Ao2000 Expenditure for premises	-300 000.00	-300 000.00					
1			A02210 Furniture & office equipment	300 000.00	300 000.00					
			Bo3101 SIS II operational maintenance	-1 000 000.00	0.00					

			Bo3111 VIS/BMS operational maintenance	-1 500 000.00	0.0
			Bo3121 EURODAC operational maintenance	-500 000.00	0.0
			Bo <sub>3</sub> 810 External support	1 500 000.00	0.0
			Bo <sub>3</sub> 8 <sub>12</sub> Quality assurance	1 500 000.00	0.0
			Ao2000 Expenditure for premises	-359 412.50	-359 412.5
			A02100 Corporate IT & telecommunication	-279 412.50	-279 412.5
			A02320 Legal expenses	143 825.00	143 825.0
			A02331 HR fees and charges	80 000.00	80 000.0
			Ao2700 External support services	615 000.00	615 000.0
2	LIS.2399	05/04/2019	Ao28oo Corporate security	-200 000.00	-200 000.0
			Bo3100 SIS II Projects	0.00	-1 000 000.0
			Bo3101 SIS II operational maintenance	0.00	-2 000 000.0
			Bo3121 EURODAC operational maintenance	0.00	3 000 000.0
			Bo <sub>3</sub> 810 External support	-200 000.00	-200 000.0
			Bo3820 Advisory groups	200 000.00	200 000.0
			Bo3001 System security and business continuity	0.00	2 256 000.0
3	LIS.2402	23/04/2019	B03120 EURODAC projects	0.00	-2 256 000.0
			A02300 Office supplies	21 370.26	21 370.2
			Ao2400 Postage	20 000.00	20 000.0
			A02700 External support services	-41 370.26	
			·		-41 370.2
			Bogooo Shared system infrastructure	0.00	-431 070.2
			Bo3010 Wide area networks	0.00	<del>-</del> 3 350 000.0
	LIC		Bo3100 SIS II Projects	0.00	-1 000 000.0
4	LIS.2407	19/07/2019	Bo3110 VIS/BMS projects	0.00	3 350 000.0
			Bo3810 External support	-57 106.33	1 000 000.0
			Bo3811 Consultancies and studies	500 000.00	0.0
			Bo <sub>3</sub> 8 <sub>12</sub> Quality assurance	-773 963.91	0.0
			Bo3820 Advisory groups	281 070.24	281 070.
			Bo3821 Other meetings and missions	50 000.00	50 000.0
			Bo <sub>3</sub> 8 <sub>3</sub> o Operational learning and development	0.00	100 000.0
			A01100 TA salaries and allowances	-1 000 000.00	-1 000 000.
			A02100 Corporate IT & telecommunication	1 000 000.00	1 000 000.
			A02220 Documentation & library expenditure	-9 000.00	<b>-9</b> 000.
			A02500 MB Meetings	-140 000.00	-140 000.
			Ao2600 Information & publications	-300 000.00	-300 000.
			Ao2700 External support services	-104 715.36	-104 715.
			Ao2800 Corporate security	553 715.36	553 715
5	LIS.2417	13/09/2019	Bo3000 Shared system infrastructure	0.00	-1 000 000.
5	213.2417	15/09/2019	Bo3100 SIS II Projects	0.00	
			-		-500 000.
			Bo3101 SIS II operational maintenance	0.00	1 000 000.
			Bo3110 VIS/BMS projects	0.00	600 000.
			Bo3111 VIS/BMS operational maintenance	726 036.09	0.
			Bo3120 EURODAC projects	0.00	-6oo ooo.
			Bo3810 External support	0.00	500 000.
			Bo3812 Quality assurance	-726 o36.og	0.
			Ao2320 Legal expenses	52 650.00	52 650.
			Ao2330 Other running costs	-52 650.00	-52 650.
			Bo3001 System security and business continuity	0.00	-300 000.
			Bo3010 Wide area networks	0.00	-2 000 000.
6	LIS.2419	25/10/2019	Bo3100 SIS II Projects	0.00	-1 300 000.
ŭ	2.3.2423	23/20/2029	Bo3110 VIS/BMS projects	0.00	1 300 000
			Bo3111 VIS/BMS operational maintenance	0.00	
					2 000 000
			Bo3120 EURODAC projects	0.00	
			Bo3120 EURODAC projects Bo3130 EES projects		-300 000
			Bo3130 EES projects	0.00	-300 000
			Bo3130 EES projects Bo3820 Advisory groups	0.00 -116 000.00 116 000.00	-300 000 600 000
			Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses	0.00 -116 000.00 116 000.00 130 000.00	-300 000 600 000 0. 130 000
			Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00	-300 000. 600 000. 0. 130 000. -130 000.
			Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00	-300 000 600 000 0 130 000 -130 000 -329 000
			Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46	-300 000 600 000 0 130 000 -130 000 -329 000 498 602
			Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises Ao2100 Corporate IT & telecommunication Ao2200 Other technical equipment & installation	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00	-300 000 600 000 0 130 000 -130 000 -329 000 498 602 -64 500
			Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises Ao2100 Corporate IT & telecommunication Ao2200 Other technical equipment & installation Ao2210 Furniture & office equipment	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00	-300 000 600 000 0 130 000 -130 000 -329 000 498 602 -64 500 393 500
			Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises Ao2100 Corporate IT & telecommunication Ao2200 Other technical equipment & installation Ao2210 Furniture & office equipment Ao2330 Other running costs	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52	-300 000 600 000 0 130 000 -130 000 -329 000 498 602 -64 500 393 500 -192 452
			Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94	-300 000 600 000 0 130 000 -130 000 -329 000 498 602 -64 500 393 500 -192 452 -206 149
			Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00	-300 000 600 000 0 130 000 -130 000 -329 000 498 602 -64 500 393 500 -192 452 -206 149 -100 000
			Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00	-300 000 600 000 0 130 000 -130 000 -329 000 498 602 -64 500 393 500 -192 452 -206 149 -100 000
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A0230 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks B03102 SIS II recast	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 900.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000. 60 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A0230 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks B03102 SIS II recast	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24	-300 000 600 000 130 000 -130 000 498 602 -64 500 393 500 -192 452 -206 149 -100 000 60 000
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises Ao2100 Corporate IT & telecommunication Ao2200 Other technical equipment & installation Ao2210 Furniture & office equipment Ao2330 Other running costs Ao2700 External support services Ao2800 Corporate security Bo3001 System security and business continuity Bo3010 Wide area networks Bo3102 SIS II recast Bo3111 VIS/BMS operational maintenance	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00	-300 000. 600 000. 0. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000. 60 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises Ao2100 Corporate IT & telecommunication Ao2200 Other technical equipment & installation Ao2210 Furniture & office equipment Ao2330 Other running costs Ao2700 External support services Ao2800 Corporate security Bo3001 System security and business continuity Bo3010 Wide area networks Bo3102 SIS II recast Bo3111 VIS/BMS operational maintenance Bo3120 EURODAC projects	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64, 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00 0.00	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000. 1 000 000300 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups Ao1301 Mission expenses Ao1401 Nursery allowance Ao2000 Expenditure for premises Ao2100 Corporate IT & telecommunication Ao2210 Furniture & office equipment & installation Ao2210 Furniture & office equipment Ao2330 Other running costs Ao2700 External support services Ao2800 Corporate security Bo3001 System security and business continuity Bo310 Wide area networks Bo3102 SIS II recast Bo3111 VIS/BMS operational maintenance Bo3120 EURODAC projects Bo3121 EURODAC operational maintenance	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00 0.00 0.00 2 571 000.00	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000. 1 000 000300 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks B03102 SIS II recast B03111 VIS/BMS operational maintenance B03120 EURODAC projects B03121 EURODAC operational maintenance B03130 EES projects B03140 ETIAS projects	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00 0.00 2 571 000.00 0.00	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000.  1 000 000300 000. 0. 1 767 0001827 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks B03102 SIS II recast B03111 VIS/BMS operational maintenance B03120 EURODAC projects B03121 EURODAC operational maintenance B03130 EES projects B03140 ETIAS projects B03140 ETIAS projects B03150 External support	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00 0.00 2 571 000.00 0.00 0.00 0.00	-300 000. 600 000. 130 000130 000329 000. 498 60264 500. 393 500192 452206 149100 00092 000. 1 000 000300 000. 0. 1 767 0004827 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03102 SIS II recast B03112 VIS/BMS operational maintenance B03120 EURODAC projects B03121 EURODAC operational maintenance B03130 EES projects B03140 ETIAS projects B03810 External support B03811 Consultancies and studies	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00 0.00 2 571 000.00 0.00 0.00 0.00 0.00 0.00 0.00 0	-300 000. 600 000. 130 000130 000130 000. 498 60264 500. 393 500192 452206 149100 00092 000. 60 000. 1000 000300 0001767 0001827 000447 000.
7	LIS.2421	22/11/2019	Bo3130 EES projects Bo3820 Advisory groups A01301 Mission expenses A01401 Nursery allowance A02000 Expenditure for premises A02100 Corporate IT & telecommunication A02200 Other technical equipment & installation A02210 Furniture & office equipment A02330 Other running costs A02700 External support services A02800 Corporate security B03001 System security and business continuity B03010 Wide area networks B03102 SIS II recast B03111 VIS/BMS operational maintenance B03120 EURODAC projects B03121 EURODAC operational maintenance B03130 EES projects B03140 ETIAS projects B03140 ETIAS projects B03150 External support	0.00 -116 000.00 116 000.00 130 000.00 -130 000.00 -130 000.00 -329 000.00 498 602.46 -64 500.00 393 500.00 -192 452.52 -206 149.94 -100 000.00 0.00 -2 604 522.24 0.00 0.00 2 571 000.00 0.00 0.00 0.00	2 000 000.  -300 000.  600 000.  130 000.  -130 000.  -130 000.  -329 000.  498 602.  -64 500.  393 500.  -192 452.  -206 149.  -100 000.  -92 000.  60 000.  1 000 000.  -300 000.  -1827 000.  -447 000.  -151 000.  -100 000.

			Bo <sub>3</sub> 8 <sub>3</sub> 1 Training for Member States	0.00	-50 00				
			A02100 Corporate IT & telecommunication	-10 000.00	-10 00				
			A02210 Furniture & office equipment	18 547.33	18 54				
			Ao2400 Postage	-8 547.33	-8 54				
			Bo3000 Shared system infrastructure	403 000.00	867 33				
			Bo3001 System security and business continuity	-818 721.99	-200 00				
			Bo3002 Back-up site – running costs	0.00	-155 00				
			Bo3010 Wide area networks	-15 225 110.45	-500 00				
			Bo3100 SIS II Projects	17 916 623.99	-300 00				
			Bo3101 SIS II operational maintenance	-534 947-44	200 00				
8	LIS.2443	11/12/2019	Bo3102 SIS II recast	0.00	-3 30				
				Bo3110 VIS/BMS projects	-1 602 461.72	1 023 30			
			Bo3111 VIS/BMS operational maintenance	0.00	-100 00				
								Bo3120 EURODAC projects	-125 000.00
			Bo3121 EURODAC operational maintenance	-382.39	-15 00				
			Bo3130 EES projects	0.00					
					296 00				
			Bo3140 ETIAS projects	0.00	-767 3				
			Bo3810 External support	-98 730.02					
			Bog811 Consultancies and studies	85 730.02	-50 oc				
			Ao2000 Expenditure for premises	100 972.00	100 9				
			A02200 Other technical equipment & installation	-0.40	-				
			A02220 Documentation & library expenditure	-782.00	-78				
			A02400 Postage	-20 453.67	-20 4				
			A02510 Other meetings	-40 000.00	-40 00				
			Ao2700 External support services	<del>-</del> 39 735-93	<del>-</del> 39 7				
			Bo3000 Shared system infrastructure	0.00	560 6				
			Bo3001 System security and business continuity	0.00	-170 00				
			Bo3002 Back-up site – running costs	0.00	-100 00				
			Bo3010 Wide area networks	0.00	-640 8				
9	LIS.2450	18/12/2019	Bo3100 SIS II Projects	0.00	-156 o				
,	- 15	10/12/2019	Bo3101 SIS II operational maintenance	0.00	506 2				
			Bo3102 SIS II recast	0.00	65 86				
			Bo3110 VIS/BMS projects	0.00	4 66				
			Bo3111 VIS/BMS operational maintenance	0.00	130 98				
			Bo3120 EURODAC projects	0.00	-1 40				
			Bo3121 EURODAC operational maintenance	0.00	-1977				
			Bo3130 EES projects	0.00	128 5				
			Bo3140 ETIAS projects	0.00	-380 9				
			Bo3810 External support	0.00	-4 2				
			Bo3811 Consultancies and studies	0.00	254 1				
			A01100 TA salaries and allowances	-551 638.52	-5516				
			A01110 CA salaries and allowances	-987 030.59	-987 o				
			A01120 SNEs and trainees allowances	-229 660.65	-229 6				
			A01200 Recruitment and reassignment expenditure	-730 175.24	-730 1				
			Ao2000 Expenditure for premises	-5 297.32	-5 2				
			A02100 Corporate IT & telecommunication	-1712.13	-17				
			A02300 Office supplies	-20 262.07	-20 2				
			Ao2330 Other running costs	-68 6og.59	-68 6				
				, , ,					
			A02331 HR fees and charges	-12 624.83	-12 6				
			Ao2500 MB Meetings	-49 480.15	-49 4				
			Ao2510 Other meetings	-53 211.23	-53 <sup>2</sup>				
			Ao2600 Information & publications	-183 774.72	-183 7				
			Ao2700 External support services	-129 682.27	-1296				
			Ao28oo Corporate security	-27 217.71	-27 2				
			Bo3000 Shared system infrastructure	1 425 324.19	1 425 3				
10	LIS.2453	20/12/2019	Bo3001 System security and business continuity	0.00	-110 2				
			Bo3002 Back-up site – running costs	-161 617.58	<b>−33</b> o				
			Bo3010 Wide area networks	625 052.83	2 223 6				
			Bo3100 SIS II Projects	-512 238.91	-2220				
			Bo3102 SIS II recast	1854 000.00					
			Bo3110 VIS/BMS projects	-3 001 956.10	-31				
			Bo3111 VIS/BMS operational maintenance	-630 444.94	432 5				
			Bo3121 EURODAC operational maintenance	0.00	-183 6				
			Bo3130 EES projects	0.00	-57 5				
			Bo3150 ECRIS projects	3 766 000.00	_5/ 5				
			Bo3810 External support	-130 766.05	-129 59				
			Bo3820 Advisory groups	-4 189.40	-123 5				
			Bo3821 Other meetings and missions	-18 838.47	−58 o				
			Bo3822 Schengen evaluations	-12 000.00	-249				
			Bo <sub>3</sub> 8 <sub>3</sub> o Operational learning and development	-144 321.88	-27 20				
			Bo3831 Training for Member States	-3 626.67	-58 1				
			Bo3000 Shared system infrastructure	-861 119.05					
11	115 2156	22/22/222	Bo3010 Wide area networks	-1759546.64					
	LIS.2456	23/12/2019	Bo3102 SIS II recast	3 260 783.58					
11			B03102 313 II Tecast	3 200 /03.50					

# Annex VI. List of training sessions delivered to Member States

The following training sessions were delivered in 2019 (in chronological order):

- VIS Operational Training Intermediate level (L2)
- 2. Webinar Schengen Evaluation (CZ)
- 3. Webinar Schengen Evaluation (PL)
- 4. VIS Operational Training Advanced level (L<sub>3</sub>)
- 5. Eurodac Operational Training Entry level (L1)
- 6. Eurodac Operational Training Intermediate level (L2)
- 7. Webinar Schengen Evaluation (SL)
- 8. SIS II Target Group Course SPoC Technical Profile
- 9. SIS Newcomer Training Programme: IE (visit to eu-LISA)
- 10. Webinar Schengen Evaluation (FR-revisit)
- 11. Eurodac Operational Training Advanced level (L<sub>3</sub>)
- 12. SIS II for SIRENE (joint course with CEPOL)
- 13. Train the Trainer SIS II, VIS, Eurodac for IT Operators (joint course with CEPOL)
- 14. SIS II Target Group Course– SIS II Technical Profile
- 15. Webinar Schengen Evaluation (HU)
- 16. SIS II Target Group Course SIRENE Technical Profile
- 17. Webinar Schengen Evaluation (SK)
- 18. International Law Enforcement Cooperation and Information Exchange (contribution to CEPOL course)
- 19. Schengen Evaluation SIS and SIRENE (contribution to CEPOL course)
- 20. SIRENE Officers level 1 (contribution to CEPOL course)
- 21. VIS Newcomer Training Programme (visit to eu-LISA): BG/RO/HR/Europol
- 22. Eurodac and SIS II: role of large-scale IT systems in combatting the facilitation of illegal immigration
- 23. SIS II Target Group Course– SPoC Technical Profile
- 24. SIS Newcomer Training Programme: Frontex and Europol
- 25. EES Webinar: Entry/Exit System High-Level Architecture and Implementation Roadmap

## Annex VII. Financial accounts

## Balance sheet (EUR)

NON-CURRENT ASSETS	2019	2018	Variation
Computer software	15 712 271	22 419 631	(6 707 360)
Intangible assets under construction	20 154 328	9 879 120	10 275 208
Intangible assets	35 866 599	32 298 751	3 567 848
Land and buildings	32 105 388	33 291 494	(1 186 106)
Plant and equipment	542 320	856	541 464
Furniture and vehicles	141 620	127 473	14 147
Computer hardware	16 439 276	11 020 577	5 418 699
Other fixtures and fittings	377 108	447 069	(69 961)
Property, plant and equipment	49 605 712	44 887 469	4 718 243
Non-current pre-financing	2 546 822	-	2 546 822
TOTAL NON-CURRENT ASSETS	88 019 133	77 186 220	10 832 914
CURRENT ASSETS			
Current pre-financing	-	2 546 822	(2 546 822)
Deferred charges	3 134 058	1 631 816	1 502 242
Sundry receivables	19 364 524	12 528 534	6 835 989
Other current receivables	7 193	665	6 528
Current exchange receivables	22 505 775	14 161 015	8 344 760
Receivables from Member States (VAT)	348 861	466 023	(117 161)
Contribution from Associated Countries	3 726 733	2 242 936	1 483 797
Non-exchange receivables	4 º75 594	2 708 959	1 366 636
TOTAL CURRENT ASSETS	26 581 369	19 416 796	7 164 573
TOTAL ASSETS	114 600 503	96 603 016	17 997 487
NET ACCETC	2010	2040	Variation
NET ASSETS  Accumulated surplus	2019	2018	
Economic result for the year (+ profit)	77 119 638 7 516 088	65 085 597 12 034 041	12 034 041 (4 517 953)
NET ASSETS	84 635 727	77 119 638	7 516 088
1.1.7.552.75		77 ==5 =5=	, , , , ,
CURRENT LIABILITIES			
Current payables	4 722 680	2 810 192	1 912 488
Accounts payable with consolidated entities	1 657 575	920 267	737 308
Accounts payable	6 380 255	3 730 459	2 649 796
Accrued charges	23 584 521	15 752 918	7 831 603
TOTAL CURRENT LIABILITIES	29 964 776	19 483 377	10 481 399
TOTAL LIABILITIES	114 600 503	96 603 016	17 997 487

## Statement of financial performance (EUR)

REVENUES	2019	2018	Variation
Subsidy from the Commission	136 405 325	92 718 169	43 687 156
Contribution from EFTA countries	3 726 733	2 242 936	1 483 797
Non-exchange revenue - transfer of assets	-	12 868 730	(12 868 730)
Non-exchange revenues	140 132 058	107 829 835	32 302 223
Fixed asset- related revenues	-	146	(146)
Miscellaneous income	52 475	35 158	17 316
Administrative revenues with consolidated entities	-	22 664	(22 664)
Exchange rate gains	46	22	24
Exchange revenues	52 521	57 990	(5 469)
Total revenues	140 184 579	107 887 826	32 296 754
EXPENSES			
Operational expenses	(67 177 585)	(46 391 721)	(20 785 863)
Staff expenses	(19 389 591)	(16 230 091)	(3 159 500)
Finance costs on late payments	(5 075)	(5 695)	620
Administrative and IT expenses	(16 296 919)	(5 538 753)	(10 758 165)
Other external service provider expenses	(3 015 030)	(2 986 458)	(28 572)
Expenses with consolidated entities	(1 939 934)	(1 747 654)	(192 280)
Fixed asset-related expenses	(24 720 218)	(22 847 458)	(1 872 760)
Operating Lease Expenses	(123 473)	(105 937)	(17 535)
Exchange rate losses	(668)	(17)	(651)
Administrative expenses	(65 490 907)	(49 462 063)	(16 028 844)
Total expenses	(132 668 491)	(95 853 784)	(36 814 707)
ECONOMIC RESULT FOR THE YEAR	7 516 088	12 034 041	(4 517 953)
Cash-flow statement – indirect method (El	UR)		
Cash-flows from ordinary activities		2019	2018
Surplus/(deficit) from ordinary activities		7 516 088	12 034 041
Operating activities			
Amortisation of intangible fixed assets		13 258 514	15 258 740
Depreciation of tangible fixed assets		8 550 030	5 513 004
(Increase)/decrease in Long-term Pre-financing		(2 546 822)	
(Increase)/decrease in Short-term Receivables		(7 164 573)	3 449 809
Increase/(decrease) in Accounts payable and accrued char	ges	9 744 091	2 546 492
Increase/(decrease) in Liabilities related to consolidated E	U entities	737 308	(421 224)
Net cash-flow from operating activities		30 094 635	38 380 864
Cash-flows from investing activities			
(Increase) in tangible and intangible fixed assets		(30 844 635)	(38 380 864)
Net cash-flow from investing activities			
		(30 844 635)	(38 380 864)

## Annex VIII. Annual activities and indicators

Note for projects' performance indicators: project performance is monitored and reported according to the Agency's project management methodology. In line with this methodology, project performance indicators retained for the Agency's corporate reporting are cost, schedule and scope. For reporting on performance indicators, the Agency uses a 'RAG' (red, amber/yellow, green) traffic-light rating scale. This scale indicates whether costs, schedule and scope deviations are within agreed tolerances (green), at risk of becoming outside agreed tolerances (amber) or outside agreed tolerances (red).

CAAR ref.	Annual activity	Outcome	Outcome status	Additional comment on outcome	Performance Indicator (PI)	PI status	Additional comment	PD2019- 2021 ref.
1.1.1	SIS II maintenance	SIS II system available and within SLAs in 2019.	Delivered		Conformity with the SIS II SLA and corporate KPIs	KPI 6: 99.95 % (Amber) KPI 7: 99.84 % (Green)		2.2.1.6
1.1.1	SIS II AFIS maintenance	SIS II AFIS system available and within SLAs in 2019.	Delivered		Conformity with the AFIS SLA	Achieved		2.2.1.7
1.1.1	VIS/BMS maintenance	VIS/BMS behaves as per requirements.	Delivered		Conformity with the VIS/BMS SLA and corporate KPI	KPI 8: 99.65 % (Amber) KPI 9: 97.79 % (Green)		2.2.1.5
1.1.1	Eurodac Maintenance	The Member States receive a reliable and uninterrupted Eurodac service.	Delivered		Conformity with the Eurodac SLA and Eurodac-related corporate KPIs	KPI 3: 99.55 % (Amber) KPI 4: 99.91 % (Green)		2.2.1.3
1.1.1	DubliNet maintenance	The Member States are receiving reliable and uninterrupted DubliNet services.	Delivered		Conformity with DubliNet operational SLA	Achieved		2.2.1.4
1.1.1	24/7 first-level support for operational management of the systems	Member States' users receive efficient and reliable services at the first level of support	Delivered		Customer satisfaction (KPI 20) Helpdesk performance (KPI 22)	KPI 20: 93.40 % (achieved) KPI 22: 90 % (achieved)		2.2.1.1
1.1.1	24/7 second-level application support for operational management of the systems	Member States receive a reliable service of the applications, including databases.	Delivered		Conformity with systems' KPI and SLAs	Achieved	See KPI 3 to 9	2.2.1.2
1.1.1	Single integrated monitoring solution	Improved systems monitoring, with a higher level of automation, significantly minimising the risk of underestimating any potential issue.	Delivered		Cost, schedule, scope	Green, amber, green		2.3.1.4
1.1.2	New SIS legal framework	New SIS central system releases including the new SIS core functionalities identified in the recast legal instrument (return decision not included).	Ongoing	Multiannual project	Cost, schedule, scope	Green, green, green		2.3.1.5
1.1.2	SIS return decision	A new SIS central system release including return decision functionalities.	Ongoing	This is a multi-annual project, the ICD/DTS updates are ongoing	Cost, schedule, scope	Green, green, green		2.3.1.6
1.1.2	Implementation of SIS II AFIS Phase 2	This project will provide Member States with additional biometric capabilities.	Ongoing		Cost, schedule, scope	Green, amber, green	Slight delay, design phase planned to be closed during Q2 2020	2.3.1.22

New search engine and Oracle upgrade for SIS II, improving availability and including transcription aspects	New cost-efficient and state-of-the-art search functionalities, additional query and alerts capacity, preparing search engine module for national systems.	Ongoing	The WebLogic/Java upgrade was postponed from end 2019 to January 2020, owing to issues being found	Cost, schedule, scope	Green, amber, green	Upgrade deployed in January 2020 instead of end of 2019	2.3.1.11
Deployment of automated batch processes for the adaptation of existing CS-SIS alerts	SIS application will provide better accuracy for queries using machine-readable zone (MRZ).	Delivered		Cost, schedule, scope	Green, green, green		2.3.1.12
SIS II support to Member States (including integration of new users)	Support to national systems correctly delivered.	Delivered		Quality and time of Member States' integration Member States testing adherence to the plan	Achieved	Status described in section 1.1.2	2.2.1.8
VIS capacity increase to 100 million visa applications	VIS system is able to manage up to 100 million visa applications.	Ongoing		Cost, schedule, scope	Green, amber, amber	The project faced a scope reduction and closure was delayed owing to contractual issues	2.3.1.13
BMS database increase (Phase 1)	Appropriate continuation of an existing service provided by eu-LISA to Member states	Ongoing		Cost, schedule, scope	Green, amber, green	Release was postponed to stabilise the production environment first	2.3.1.9
VIS-BMS background database and test quick wins	A new upgraded VIS background database and a new BMS noise database is available.	Delivered		Cost, schedule, scope	Green, amber, green	The project was extended for 6 months owing to quality issues with deliverables	(2018) 2.4.1.5
Implementation of VIS/BMS end-to-end testing platform	VIS and BMS are improved with a set of end-to-end test tools allowing consistent, adaptive and transparent test campaigns.	Delivered		Cost, schedule, scope	Green, amber, green	Overall duration was extended by 4 months, owing to dependency on another project using the test environment	2.3.1.7
Test environment upscale to 100 % of pre-production environment (Phase 1)	The new test environment has the same capacity as the pre-production environment.	Postponed	This project has been postponed to 2020 in order to prioritise the VIS- EES interconnection	Cost, schedule, scope	Project postponed		2.3.1.10
Tuning of VIS transactional throughput	VIS is improved and upgraded to adapt to business needs and legislative changes.	Delivered	Report delivered but no implementation	Cost, schedule, scope	Green, amber, green	Delay in project close	(2018) 2.4.1.11
Tuning of BMS transactional throughput	BMS is improved and upgraded to adapt to business needs and legislative changes.	Delivered	Report delivered but no implementation	Cost, schedule, scope	Green, amber, green	Delay in project closing	(2018) 2.4.1.12
VIS new users' integration: Europol	Europol can connect and use VIS system as per legal basis.	Ongoing		Cost, schedule, scope	Green, amber, green	Delay in national interface readiness	2.3.1.14
Granting of passive access for Bulgaria and Romania to VIS	Bulgaria and Romania can use the VIS system as per legal basis.	Ongoing	Project outcome has been delayed owing to additional test campaigns needed	Cost, schedule, scope	Green, amber, green	Final release planned for June 2020	2.3.1.15
	Oracle upgrade for SIS II, improving availability and including transcription aspects  Deployment of automated batch processes for the adaptation of existing CS-SIS alerts  SIS II support to Member States (including integration of new users)  VIS capacity increase to 100 million visa applications  BMS database increase (Phase 1)  VIS-BMS background database and test quick wins  Implementation of VIS/BMS end-to-end testing platform  Test environment upscale to 100 % of pre-production environment (Phase 1)  Tuning of VIS transactional throughput  Tuning of BMS transactional throughput  VIS new users' integration: Europol  Granting of passive access for	Oracle upgrade for SIS II, improving availability and including transcription aspects  Deployment of automated batch processes for the adaptation of existing CS-SIS alerts  SIS II support to Member States (including integration of new users)  VIS capacity increase to 100 million visa applications  BMS database increase (Phase 1)  VIS-BMS background database and test quick wins  Implementation of VIS/BMS end-to-end testing platform  Test environment upscale to 100 % of pre-production environment (Phase 1)  Tuning of VIS transactional throughput  SIS application will provide better accuracy for queries using machine-readable zone (MRZ).  SUS application will provide better accuracy for queries using machine-readable zone (MRZ).  SUS application will provide better accuracy for queries using machine-readable zone (MRZ).  SUS application will provide better accuracy for queries using machine-readable zone (MRZ).  Support to national systems correctly delivered.  VIS system is able to manage up to 100 million visa applications.  VIS system is able to manage up to 100 million visa applications.  Appropriate continuation of an existing service provided by eu-LISA to Member states  VIS and BMS are improved with a set of end-to-end test tools allowing consistent, adaptive and transparent test campaigns.  Test environment upscale to 100 % of pre-production environment.  Tuning of VIS transactional throughput  BMS is improved and upgraded to adapt to business needs and legislative changes.  VIS new users' integration:  Europol can connect and use VIS system as per legal basis.  Granting of passive access for Bulgaria and Romania can use the VIS	Oracle upgrade for SIS II, improving availability and including transcription aspects  Deployment of automated batch processes for the adaptation of existing CS-SIS alerts  SIS II support to Member States (including integration of new users)  VIS capacity increase to 100 million visa applications  BMS database increase (Phase 1)  VIS-BMS background database and test quick wins end-to-end testing platform  Test environment upscale to 100 % of pre-production environment (Phase 1)  Tuning of VIS transactional throughput  Search functionalities, additional query and alerts capacity, preparing search engine module for national systems.  SIS application will provide better accuracy for queries using machine-readable zone (MRZ).  Delivered delivered.  VIS system is able to manage up to 100 million visa applications.  Ongoing million visa applications.  Appropriate continuation of an existing service provided by eu-LISA to Member states  A new upgraded VIS background database and a new BMS noise database is available.  VIS and BMS are improved with a set of end-to-end test tools allowing consistent, adaptive and transparent test campaigns.  Test environment upscale to 100 % of pre-production environment.  Tuning of VIS transactional throughput  BMS is improved and upgraded to adapt to business needs and legislative changes.  Tuning of BMS transactional to business needs and legislative changes.  WIS new users' integration:  Europol can connect and use VIS system as per legal basis.  Granting of passive access for Bulgaria and Romania can use the VIS  Ongoing	Oracle upgrade for SIS II, improving availability and including transcription aspects         search functionalities, additional query and alerts capacity, preparing search including transcription aspects         Delivered           Deployment of automated batch processes for the adaptation of existing CS-SIS salerts         SIS application will provide better accuracy for queries using machine-readable zone (MRZ).         Delivered           SIS II support to Member States (including integration of new users)         Support to national systems correctly delivered.         Delivered           VIS capacity increase to 100 million visa applications         VIS system is able to manage up to 100 million visa applications.         Ongoing           BMS database increase (Phase 1)         Appropriate continuation of an existing service provided by eu-LISA to Member states         Delivered           VIS-BMS background database and test quick wins and atest quick wins end-to-end testing platform         An ew upgraded VIS background database and a new BMS noise database is available.         Delivered           Implementation of VIS/BMS end-to-end testing platform         VIS and BMS are improved with a set of end-to-end test tools allowing consistent, adaptive and transparent test campaigns.         Postponed         This project has been postponed to 2020 in order to prioritise the VIS-ESS interconnection environment.           Tuning of VIS transactional throughput         VIS is improved and upgraded to adapt to business needs and legislative changes.         Delivered         Report delivered but no implementation           V	Search functionalities, additional query and alerts capacity, preparing search engine module for national systems. and alerts capacity, preparing search engine module for national systems. Pelivered adaptation of existing CS-SIS alerts	Oracle upgrade for SISI I, improving availability and including transcription and elerst capacity, preparing search including transcription and elerst capacity, preparing search and elerst capacity, preparing search engine module for national systems.  Deployment of automated batch processes for the adaptation of existing CS-SIS alerts  SISI support to Member States (including integration of new users)  SISI support to national systems correctly delivered.  SISI support to member batch processes for the adaptation of existing CS-SIS alerts  SISI support to national systems correctly delivered.  SISI support to member batch processes for the adaptation of existing CS-SIS alerts  SISI support to national systems correctly delivered.  SISI support to member batch processes for the adaptation of existing CS-SIS alerts  SISI support to national systems correctly delivered.  SISI support to national systems correctly delivered.  Support to national systems is able to manage up to 100 million visa applications.  Wis system is able to manage up to 100 million visa applications.  Million visa applications  Wis system is able to manage up to 100 million visa applications.  SISI support to member batch to a system system is able to manage up to 100 million visa applications.  Wis system is able to manage up to 100 million visa applications.  Wis system is able to manage up to 100 million visa applications.  Appropriate continuation of an existing system and a new BMS noise database is available.  US and BMS are improved with a set of end-to-end test ting plantor with the set of en	Search functionalities, additional query and for \$1S II, improving availability and including transcription aspects   Deployment of automated back processes for the adaptation of existing \$250 politication will provide better project and activate programs asserts and activa

Second								
Search storage of CAT1_2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	1.1.2	USK renewal	document with which all Member States using custom acquisition tools will have to comply and delivery of a customised kit with required central support for its	Cancelled	order to address the issue as part of sBMS	Cost, schedule, scope	· · · · · · · · · · · · · · · · · · ·	2.3.1.8
Inclusion of copies of pages of and identify of pregular depote of Eurodac Recast Hose 2.12 (under EU and national scheme) through European return policies.   Project managing resettlements (under EU and national scheme) through European European (under EU and national scheme) through European (under EU and European EU and European EU and European European European asylum provisions and providing increased recognition and providing increased provisions and providing incr	1.1.2	search storage of CAT1,2,3, new biographical/biometric data, capacity upgrade and	provisions and sized properly to allow compliance of the Member States with	-	adoption of Eurodac	Cost, schedule, scope	Project inactive	2.3.1.16
Include FU and national schemesh through to legal basis (Eurodac and can ct in compliance with the legal basis (Eurodac and can ct in compliance with the legal basis (Eurodac in line with the new legal provisions, enabling the Member States to implementation of the recognition of the program alphanument searches and better exploit the data registered in growisions and providing increased matching accuracy through multimodal policies.  1.1.2   Eurodac Recast Phase 3: provisions and providing increased matching accuracy through multimodal policies.  1.1.2   Dublin automation system   New system operational in line with the new legal provisions, and providing increased matching accuracy through multimodal policies.  1.1.2   Change Eurodac   Change Eurodac   Provided Part Provi	1.1.2	inclusion of copies of passport and identity	establishing the identity of irregular migrants and with compliance with	•	adoption of Eurodac	Cost, schedule, scope	Project inactive	2.3.1.17
Project malphanumeric searches perform alphanumeric searches and perform alphanumeric searches and perform alphanumeric searches and perform alphanumeric searches and better exploit the data registered in Eurodac for law enforcement purposes.	1.1.2		(under EU and national schemes) through Eurodac and can act in compliance with the legal basis (Eurodac Recast 2014	=	adoption of Eurodac	Cost, schedule, scope	Project inactive	2.3.1.18
Implementation of face recognition   Provisions and providing increased matching accuracy through multimodal biometric capabilities.   Project postponed matching accuracy through multimodal biometric capabilities.   Project postponed adoption of Dublin Recast legal instruments legal instruments policies.   Project postponed until adoption of Eurodac Communication model to web services   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed until adoption of Eurodac Recast legal instruments   Project postponed unt	1.1.2		provisions, enabling the Member States to perform alphanumeric searches and better exploit the data registered in	•	adoption of Eurodac	Cost, schedule, scope	Project inactive	2.3.1.19
Inactive   States to implement European asylum policies.   Project postponed until adoption of Dublin Recast legal instruments	1.1.2	Implementation of face	provisions and providing increased matching accuracy through multimodal	-	adoption of Eurodac	Cost, schedule, scope	Project inactive	2.3.1.20
communication model to web services  Member States are able to communicate with Eurodac efficiently and comply with the new legal requirements and new types of transactions.  1.1.2 Impact assessment and cost-benefit analysis for the active-active configuration  EES implementation  EES is developed in accordance with the legal instruments.  Diagonal patients and option of Eurodac Recast legal instruments  Ability of systems and the CSI to meet the high-availability target as specified in the legal instruments.  Diagonal patients and option of Eurodac Recast legal instruments.  Prist part of the study delivered as planned delivered as planned  Selection 1.1.3 EES implementation  EES is developed in accordance with the legal instruments.  Diagonal patients and option of Eurodac Recast legal instruments.  Systems are technologically aligned. Acidoption of Eurodac Recast legal instruments.  Prist part of the study delivered as planned delivered as planned  Solvent patients and option of Eurodac Recast legal instruments.  Cost, schedule, scope Green, green, green  Green, green, green  2.3.1.34  2.3.1.35	1.1.2	Dublin automation system	new legal provisions, allowing Member States to implement European asylum	-	adoption of Dublin Recast	Cost, schedule, scope	Project inactive	2.3.1.33
cost-benefit analysis for the active-active configurationhigh-availability target as specified in the legal instruments.delivered as planned1.1.3EES implementationEES is developed in accordance with the legal instruments.Ongoing progressingThe programme is progressingCost, schedule, scopeGreen, green, green2.3.1.341.1.3ETIAS implementationETIAS is developed in accordance with the legal instruments.OngoingSee section 1.1.3Cost, schedule, scopeGreen, green, green2.3.1.35	1.1.2	communication model to	systems are technologically aligned.  Member States are able to communicate with Eurodac efficiently and comply with the new legal requirements and new	Postponed	adoption of Eurodac	Cost, schedule, scope	Project postponed	2.3.1.21
legal instruments. progressing  1.1.3 ETIAS implementation ETIAS is developed in accordance with the Ongoing See section 1.1.3 Cost, schedule, scope Green, green, green 2.3.1.35	1.1.2	cost-benefit analysis for the	high-availability target as specified in the	Ongoing		Cost, schedule, scope	Green, green	2.3.1.24
	1.1.3	EES implementation		Ongoing	: =	Cost, schedule, scope	Green, green	2.3.1.34
	1.1.3	ETIAS implementation	•	Ongoing	See section 1.1.3	Cost, schedule, scope	Green, green	2.3.1.35

						A I L D ANNOAL ACTIVITIES	CLI OINT 2019	
1.1.3	ECRIS-TCN implementation	ECRIS-TCN is developed in accordance with the legal instruments.	Ongoing	See section 1.1.3	Cost, schedule, scope	Green, amber, green	Schedule is delayed pending adoption of the implementing regulations	2.3.1.36
1.1.4	Implementation of the interoperability regulations	Reduced total cost of ownership of the systems, better service for the stakeholders, increased usability, enhanced access control and new capabilities for the systems.	Ongoing	The programme is progressing	Cost, schedule, scope	Green, green, green		2.3.1.23
1.1.4	CRRS implementation to improve automated reporting and statistics generation Phase 2 - unification of the reporting of all systems	The Member States, Commission and management of eu-LISA and teams of eu-LISA having more information on the use and functioning of the application through an easy interface. Efficient solution for developing new reporting solutions quickly.	Ongoing	Unified reporting study project on core business systems has been delivered	Cost, schedule, scope	Green, red, green	Deviation of 31 % in schedule owing to changes introduced by the organisational change	2.3.1.37
1.1.5	Operational management of the communication infrastructure and the related communication systems	The communication infrastructure, and related communication systems between the core business systems and Member States is reliable.	Delivered		Conformity with the communication infrastructure KPI 5	KPI 5: 99.9926 % Achieved		2.2.1.11
1.1.5	Introduction of advanced network statistics	Increased efficiency in the supervision of the communication infrastructure Provision of the information needed to make decisions based on the performance of the communication infrastructure.	Ongoing		Cost, schedule, scope	Green, amber, green	Slight delay due to dependence on another project	2.3.1.30
1.1.5	Handover of the activities related to implementation of the budget, acquisition, renewal and contractual matters of the VIS and SIS II communication infrastructure	The Agency is able to perform contract management for the communications infrastructure.	Delivered		Cost, schedule, scope	Green, green, green		2.3.1.31
1.1.5	Regular operational management of the communication infrastructure contracts	Communication infrastructure behaves as per requirements.	Delivered		Adherence to communication SLAs and KPIs	Achieved	See KPI 3 to 9	2.2.1.12
1.1.5	Eurodac network bandwidth upgrade	The Eurodac communication infrastructure enables a smooth and uninterrupted transaction flow as per SLA, allowing the Member States to fulfil their legal obligations.	Project inactive	Activity is pending adoption of Eurodac Recast legal instruments	Cost, schedule, scope	Project inactive		2.3.1.28
1.1.5	TESTA-ng VIS second encryption layer implementation	Second encryption layer is implemented in TESTA-ng VIS network VIS and SIS II Mail services support is arranged and transferred from sTESTA provider.	Delivered	Sirenemail and VISmail systems were transferred to eu-LISA in 2017 Pilot of VIS second encryption layer was deployed successfully in three Member States	Cost, schedule, scope	Green, amber, green	The pilot of the VIS second encryption layer is still running until there is more clarity on the EES 2nd encryption layer solution	2.3.1.32

	120 EU-LISA CUI	NSOLIDATED ANNUAL ACTIVITY REPORT 2	<u> </u>					
1.1.5	Conducting a unified network test phase	Provide the management of the Agency with understanding of the possible improvements and possible changes in regulation.	Delivered		Cost, schedule, scope	Green, green, green		2.3.1.29
1.1.5	Unified wide area network perimeter - study and design	The communication infrastructure and related communication systems are more reliable The integration of new systems is faster and easier.	Postponed	The project is postponed until the baseline design for EES is known with regard to perimeter design	Cost, schedule, scope	Project postponed		2.3.1.27
1.1.5	Operational management/daily system management operations	A reliable infrastructure is available for the operation of the systems and services, in conformity with the SLA.	Delivered		Conformity with systems KPI and CSI SLAs	Achieved	See KPI 3 to 9	2.2.1.9
1.1.5	Operate, manage and maintain the backup data centre and backup operational site	A reliable infrastructure is available for the operation of the systems and services, in conformity with the SLA.	Delivered		Conformity with systems KPI and CSI SLAs	Achieved	See KPI 3 to 9	2.2.1.10
1.1.5	CSI second-phase implementation maintenance, including reorganisation of the data centres	Mandatory maintenance within the CSI framework contract, including programme management. Mandatory reorganisation of the data centres for new infrastructure accommodation. CSI maintained 24/7, in line with SLAs agreed with eu-LISA.	Delivered		Maintenance SLAs met Systems performance indicators	Achieved	See KPI 3 to 9	2.3.1.1
1.1.5	CSI second-phase implementation	Common shared services, on top of a common shared infrastructure with virtualisation foundations, affecting the core business systems by offering a more efficient and effective operational management, by eliminating the current 'silo approach'.	Delivered		Cost, schedule, scope	Green, green, green		2.3.1.2
1.1.6	Physical security improvement of the Agency's site (Strasbourg, Tallinn)	The Agency ensures the safety and security of the people and assets in its premises in Tallinn.	Ongoing	The full delivery of some of the improvements has been postponed to Q1/Q2 2020 owing to a delay in signature of the framework contract	Compliance of physical security measures with the risk assessment outcomes and eu- LISA security rules	Partially achieved	Complete implementation delayed	2.1.6
1.1.6	Operate, plan and develop the business continuity/disaster recovery/emergency response parts from security and continuity management	The Agency improves its resilience in its horizontal activities.	Delivered		The BC controls cover all the business areas of eu-LISA The BC plans are tested and the tests demonstrate the effectiveness of BC controls in place The Agency's personnel receive specific training and awareness sessions as needed	Partially achieved		2.1.6
1.1.6	Operate, plan and develop the protective elements of security and continuity management	The Agency ensures the appropriate level of safety and security of the people and assets in its premises.	Delivered		Protective security measures comply 100 % with the risk assessment, eu-LISA rules and regulations and ISO standards	Partially achieved		2.1.6

					LO LIBIT CONSOLID	ATED ANNOAL ACTIVITY KEI	OK 1 2019 121	
1.1.6	Delivering the information security and assurance service	Ensuring that information security risks are managed to an acceptable level.	Delivered		% of business processes and their services covered by the information risk management process % of staff who have completed the security awareness e- learning training % of security controls implemented in each Information System Security Plan	Achieved		2.2.1.14
1.1.6	Implementation of the Security CSI Phase 3 identity and access management for the core business systems	Improved user management in accordance with the European Commission's information security standards on user access management.	Postponed	Owing to a CSI contractual ceiling, the project was postponed and will be implemented within the EES implementation programme	Cost, schedule, scope	Green, red, green	The project was postponed and will be implemented within the EES implementation programme	2.3.1.38
1.1.6	Security and business continuity exercise for Eurodac	The Agency ensures that the business continuity and security controls in place comply with the risk assessment results, business continuity and disaster recovery plans and security plans.	Delivered		Goals and objectives of the exercise	100 % (achieved)		2.3.1.39
1.1.6	Implementation of the recommendations coming from the security and business continuity exercises	Ensuring the continuous improvement of the security and business continuity of the systems.	Delivered		Percentage of the implementation of the action plan	Partially achieved	Status of implementation in section 1.1.6	2.2.1.13
1.1.7	Drafting the annual Work Report 2018 and reporting the intermediate status of DP compliance to MB	MB is informed of the level of compliance as regards data protection.	Delivered		Deliverables provided according to the agree deadlines	Achieved	List and dates of reports in section 1.1.7	2.1.4
1.1.7	Increasing data protection awareness	Staff comply with data protection requirements.	Delivered		Number of sessions carried out on data protection and personal data breaches Number of DP newsletter issued	2 general sessions + numerous dedicated team and coaching sessions (achieved) DP section in the 44 weekly newsletter issues (achieved)		2.1.4
1.1.7	Transposition of the new regulation repealing Regulation 45/2001	Ensure compliance of the internal rules with the applicable legal framework.	Delivered		New Decision on implementing rules adopted by eu-LISA's MB	Achieved	Decision No 2019-185 REV 1 of 09.10.2019	2.1.4

1.1.7	Perform the annual Data Protection Survey	Recommendations on data protection compliance to be implemented to increase the Agency's data protection compliance.	Delivered	The content of the activity was updated to achieve the expected outcome, taking into account the change in the legal framework A gap analysis for the new Regulation was conducted	A gap analysis and action plan to comply with the new DP Regulation prepared and presented to ED and MB	Achieved	The most representative findings of the gap analysis and recommended actions were presented at the MB meeting in November 2019	2.1.4
1.1.8	Drafting technical reports and aggregating statistics	Fulfilment of all reporting obligations as outlined in the legal basis.	Delivered		All reports published	Achieved	List and dates of publication in section 1.1.8	2.1.1
1.1.9	Providing training on the technical use of the systems to the Member States	A responsive and tailored systems training programme in place that meets in full the needs of stakeholders.	Delivered		KPI 17: Satisfaction rate (scale 1-5, 1 lowest, 5 highest)	KPI 17: 4.39 (achieved)		2.1.1
1.1.10	Execution of externally- directed activities delineated in the annual research and technology monitoring roadmap for 2019 and the research and technology monitoring strategy 2019- 2021	Dissemination of accrued knowledge of relevance boosts necessary stakeholder awareness on technical matters, leading to improved collaborative possibilities  The Agency's profile as a centre of knowledge is raised and its image boosted.	Delivered		One research and technology monitoring report published Two industry events and an annual conference take place within the calendar year and have strong attendance from diverse stakeholders	Achieved	List and dates of publication and events in section 1.1.10	2.1.1
1.1.10	Monitoring of research and technological developments and input of learning into internal projects focusing on system evolution, new system implementation, Agency capability enhancement and new service provision	eu-LISA's large-scale IT systems are maintained and evolved utilising the best available technologies.	Delivered		Submission of internal technology briefs on request. Engagement with system AGs to refine priorities and feed back into system evolution work. Research and technology monitoring staff are part of the project teams for the most technologically involved projects.	Achieved		2.1.1
1.2.1	Develop and deploy processes and training programmes, evaluate projects, perform project quality assurance reviews, appraise processes, and report project performance	Improved alignment between Agency's strategy and project execution through the integration of main processes: project management, programme management and portfolio management.	Delivered		Achieving objectives agreed in the EPMO roadmap	Achieved		Not included
1.2.1	Official appraisal based on capability maturity model integration (CMMI)	Agency officially rated against CMMI model.	Postponed	The Agency did not have sufficient resources to implement the CMMI model	Readiness of the procurement documentation	Activity postponed		Not included
1.2.1	Project portfolio management capability	The major outcome of this project is made up of two components: 1. process model for portfolio management 2. IT Roadmap for implementing the PPM (Project Portfolio Management) process model.	Delivered		New process and IT roadmap approved within time, scope and budget	Achieved		Not included

1.2.1	Corporate Risk Management Evolutions	Process Model for Corporate Risk     Management 2. IT Roadmap for     implementing the Corporate Risk     Management process model.	Ongoing	The Corporate Risks and Issues were collected and prioritised during the third quarter of 2019.	Corporate Risk Management process model and IT Roadmap delivered	Behind	The re-definition of the Corporate Risk Management Policy and the design of the Corporate Risk Management process model will be carried out in 2020	Not included
1.2.1	Develop a quality management system for the smart borders programme (EEE implementation programme)	The smart borders programme meets its quality objectives.	Delivered		Readiness of the QMS by the date of signature of the Smart Borders Programme	Achieved	The Quality Management System for projects and programmes was ready by the time of EES contract signature	Not included
1.2.2	eu-LISA ITSM framework maintenance and development	Efficient review, support and further development of eu-LISA processes and service model.	Delivered		ITSM KPI, new processes documentation	Achieved		2.2.2.1
1.2.2	Integration of asset management with configuration management	A single, centralised and relational repository for the contractual, financial and operational status of the IT components and assets.	Postponed	Owing to lack of resources this project has been postponed to 2020	Percentage of assets and configuration items covered by the integration model; Number of incidents reported Number of unauthorised changes detected automatically	Project postponed		2.3.1.3
1.3.1	Further development of enterprise architecture	A holistic view of IT and business interrelationship is defined at enterprise level.	Delivered		Cost, schedule, scope	Green, green, green		2.1.5
1.3.2	Stakeholder engagement and policy coordination	Enhanced cooperation with eu-LISA's external stakeholders and internal engagement within the Agency.	Delivered		High-quality stakeholder relations and comprehensive policy coordination	Achieved	Status described in sections 1.3.1 and 1.3.2	2.1.1
1.3.2 - 1.3.3	Stakeholder engagement and policy coordination	Systematic and well-functioning cooperation with eu-LISA's stakeholders, through policy analysis, internal coordination and appropriate outreach to relevant stakeholders.	Delivered		High-quality stakeholder relations and comprehensive policy coordination	Achieved	List of activities in sections 1.3.2 and 1.3.3	2.1.1
1.3.3	Contribution as an observer to Schengen evaluations in the fields of SIS/SIRENE and Common Visa Policy and ensuring better use of SIS II and VIS by Member States	EU Member States apply correctly the Schengen legislation in the fields of SIS/SIRENE and common visa policy and ensure better use of SIS II and VIS.	Delivered		Participation to the evaluation when and where needed	Achieved	List of evaluations attended in section 1.3.3	2.1.1
1.4.2	Planning and reporting	eu-LISA provides its stakeholders with sufficient information on the planning and execution of its tasks and its performance.	Delivered		SPD 2020-2022 adopted on time without major amendments from MB Timely submission of the interim report CAAR 2018 adopted on time without major amendments from MB	Achieved	List of reports and dates of adoption in section 1.4.2	2.1.1

### eu-LISA **PUBLIC**

	124 EU-LISA COI	NSOLIDATED ANNUAL ACTIVITY REPORT 2	019					
1.4.3	Providing governance and compliance management capabilities	The Agency sufficiently applies elements of good governance in its compliance management practices.	Delivered		Internal control register and monitoring reports are produced to the required timing, scope and quality	Achieved	Status described in chapter 3	2.1.1
1.4.3	Timely administrative support for the Management Board	The MB is sufficiently supported to perform its duties effectively.	Delivered		Meetings delivered as planned KPI 20: Overall stakeholder satisfaction rate as measured in satisfaction survey	3 MB meetings organised (achieved) KPI 20: 93.4 % (achieved)		2.1.1
1.4.3	Timely administrative support for the AGs	The AGs are sufficiently supported to perform their duties effectively.	Delivered		Meetings delivered as planned. KPI 20	All AG meetings organised as planned KPI 20 achieved		2.1.1
1.4.4 - 2.3	Internal control, procedures, audits related to finances and procurement	The Agency uses a comprehensive set of procedures and checks that are fit for purpose to promote sound financial management and internal control.	Delivered		A comprehensive and coherent set of procedures covers the main business processes in finance and procurement	Achieved		2.1.2
1.4.4 - 2.3	Timely delivery of services related to budgetary, procurement, financial and asset management	High-quality and timely provision of budgetary, procurement and financial services are provided throughout the year Processes are continuously revised to improve efficiency and effectiveness, wherever possible through dematerialisation.	Delivered		No major disruption of services attributable to internal organisational issues KPI 10: Cancellation rate of payment appropriations KPI 11: Rate (%) of budgetary commitments implementation KPI 12: Rate (%) of payment implementation KPI 15: Ratio (%) of payments completed within the statutory deadlines	Achieved KPI 10: 12.7 % (above target) KPI 11: 98.7 % (achieved) KPI 12: 99.30 % (achieved) KPI 15: 92.8 % (achieved)		2.1.2
1.4.4 - 2.3	Execution of the Procurement and Acquisition Plan	The Agency's acquisition needs are addressed in compliance with statutory obligations and within the budgetary framework.	Delivered		KPI 18: Procurement compliance with the Agency's PAP KPI 19: % of main procurement projects on schedule	KPI 18: 1.12 KPI 19: 58 %		2.1.2
1.4.4 - Annex V	Introduce for the first full financial year an activity- based management model (including costing, budgeting, reporting)	The Agency is capable of precisely measuring its performance in the execution of its main business processes in accordance with an activity-based management model.	Delivered		The Agency is capable of implementing an ABB system	Achieved		2.1.2
1.4.5 - 2.4	Optimisation and sound management of human resources in terms of organisational structure, processes and practices in compliance with the relevant rules and decisions	The Agency's and HRU's organisational structure reflect the organisational development and accommodate future growth eu-LISA fulfils its obligations towards staff in accordance with the regulatory framework.	Ongoing	The revision of the recruitment guidelines is ongoing Procurement of risk assessment in the field of health and safety is ongoing Procurement of the medical service in Tallinn was concluded; for Strasbourg, no offer was submitted	KPI 14: Ratio of administrative resources to operational resources KPI 25: Percentage of uncertified vs certified absence days from work KPI 26: Annual Percentage Staff Turnover KPI 27: Staff performance index KPI 28: Staff engagement level	KPI 14: 16.61 % / 72.38 % (achieved) KPI 25: 30 % (above target) KPI 26: 3.14 % (achieved) KPI 27: 9 %, 0 %, 56 % (almost achieved) KPI 28: 88 % (achieved)	KPI 25 is above target (< 25 %), owing to the difficulty in reaching a doctor at short notice, therefore the number of uncertified days is increasing KPI 27 is just below target for the first element (100 %) KP 28 Staff engagement was measured by evaluating the percentage of staff responding to the 360 degree Evaluation Survey	2.1.3

### eu-LISA **PUBLIC**

					EU-LISA CONSOLID	ATED ANNUAL ACTIVITY RE	PORT 2019 125	
1.4.5	Development of the HR IT tools and their implementation	eu-LISA Human Resource Management will be optimised in terms of performance efficiency, resource allocation, systematisation of data structure and auditable records.	Delivered		Cost, schedule, scope	Green, green, green		2.1.3
1.4.5	Staff training related to operations	Staff perform better and are acquainted with the best practices in the field of technology.	Delivered		Number of training days per year General satisfaction level	40 training activities involving more than 600 participants (achieved) Average general satisfaction of 80 % (achieved)		2.2.4.1
1.4.6	Facility operations to enable full and effective use of the new HQ building in Tallinn	Improved working conditions for staff and ability to use the new HQ effectively.	Delivered		Conformity with applicable standards	Achieved		2.1.5
1.4.6	Implementation of logistics and supply services in the new HQ	Improved working conditions for staff and ability to use the new HQ effectively.	Delivered		Cost, schedule, scope	Green, green, green		2.1.5
1.4.6	Maintenance activities for all equipment and assets at the technical site	The facilities provide all the necessary conditions.	Delivered		Number of corrective actions Number of preventive measures Number of technology or other developments Number of faults	Achieved	Monthly internal reports approved	2.1.5
1.4.6	Extension of the operational premises to host current and future projects	Adequate working and operational conditions as well as implementation of technical, logistical and operational best practices.	Ongoing	The acceptance of the project is planned for Q1 2026	Cost, schedule, scope	Green, green, green		2.1.5
1.4.6	Mission portfolio and creation of an internal mission guide	Improved effectiveness of the mission's portfolio.	Partially delivered	Implementation of ALEGRO was cancelled. eu-LISA is going to use the EC's mission management tool MIPS. Implementation will take place after the deployment of SYSPER II in the Agency. Estimated launch of the tool is Q4 2020. In the meantime, two ARES workflows have been implemented for the mission orders and mission reimbursements contributing to the improved effectiveness of the mission portfolio.	Number of missions accomplished timely when requests submitted on time.	Achieved	Internal report	2.1.5

#### eu-LISA **PUBLIC**

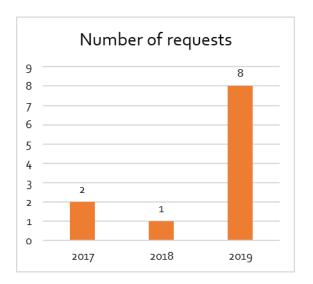
1.4.6	Long-term archive preservation strategy of the Agency	Provide services in the field of effective document and archive management Improved working conditions for staff.	Delivered		Adherence to legal obligation	Achieved with slight delay	eu-LISA Long-Term Preservation Policy and Long-Term Preservation Procedures were adopted by ED Decision in March 2020	2.1.5
1.4.6	Maintenance and evolution of the corporate network architecture	Sufficient support for corporate IT management, improved working conditions for staff, enhanced communication abilities.	Ongoing	Proxy modernisation: ongoing, delay occurred because of reprioritisation Conference room in Strasbourg: postponed to 2020	Cost, schedule, scope	Green, amber, green	Implementation will be completed by Q2 2020	2.1.5
1.4.6	Maintenance and evolution of corporate system and storage architecture	Services provided in the field of corporate IT management Enhanced communication abilities.	Ongoing	Slight delay occurred in some activities	Cost, schedule, scope	Green, amber, green	The delayed activities are planned to be completed by Q2 2020	2.1.5
1.4.6	Corporate applications enhancement	Enhanced capabilities of the SharePoint, document management and HR platforms.	Delivered		Cost, schedule, scope	Green, green, green		2.1.5
1.4.6	Evolution of eu-LISA e- learning environments	Improved e-learning and information conditions for staff and Member States Enhanced communication abilities.	Delivered		Cost, schedule, scope	Green, green, green		2.1.5
1.4.7	Implementation of the External Communication and Information Action Plan	The primary stakeholders have a better knowledge and improved awareness of the role and tasks of the Agency.	Delivered		KPI 29: external web-based visibility Participants' satisfaction rate with the event management is measured through evaluation sheets	KPI 29: Achieved Satisfaction rate: 96.6 % (achieved)	Number of followers on social media platforms increased 1.5 times	2.1.1
1.4.7	Website hosting and evolution	Provide services in the field of web hosting and content reposition.	Delivered		Cost, schedule, scope	Green, green, green		2.1.5
1.4.7	Implementation of eu-LISA Internal Communication Action Plan	Staff at all the Agency's sites are informed and engaged at corporate level, allowing informed decisions to be made regarding their professional tasks and with access to internal communication tools for information sharing and feedback.	Delivered		Compliance of the Annual Internal Communication Action Plan with the set milestones and time-schedule	Achieved		2.1.1
1.4.8	Implementation of the Annual Internal Audit Plan	Effective, efficient risk management and control and governance processes and procedures are in place to enable eu-LISA to achieve its objectives.	Delivered		% implementation of Annual Internal Audit Plan.	89 % (achieved)		2.1.7
Annex VII	Maintaining the Agency's accounts	Presenting the annual accounts so that they represent fairly and transparently the financial position of the Agency, facilitating the discharge procedure.	Delivered		Timely delivery of provisional, consolidated and final accounts to the Budgetary Authority and ECA	Achieved		2.1.2
Not referenced	Providing legal advice to eu-LISA	Compliance by eu-LISA with the applicable regulations.	Delivered		% cases of litigation either in court or prior to court where a timely reply is provided	100 % (achieved)		2.1.5

## Annex IX. Report on public access to documents

According to Article 17 of the MB Decision of 28 June 2012, which reflects the wording of Article 17 of Regulation (EC) No 1049/2001 on access to documents, and in accordance with Article 34 of the Agency's establishing regulation, eu-LISA shall annex to the annual report a report on access to documents. The report shall include the number of cases in which the institution refused to grant access to documents and the reason for such refusals.

## Report on requests for access to documents in 2019

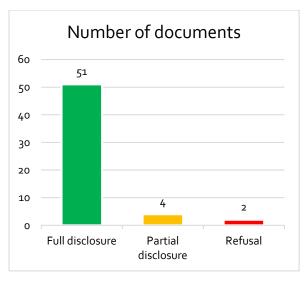
The Agency strives to guarantee transparency in its processes, including the procedure for access to documents. In 2019, the Agency maintained the highest levels of good administrative conduct and respected all deadlines specified by Regulation (EC) No 1049/2001.

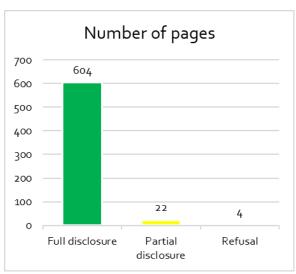


During 2019, the Agency received eight requests to access documents, an increase over 2018 (a single request for access to documents) and 2017 (two requests). In addition, the Agency received one confirmatory application requesting that eu-LISA review its previous decision.

The Agency's decisions on access to documents have not been challenged before EU Courts. Additionally, the Agency did not receive any complaints relating to access to documents before the European Ombudsman.

In the course of 2019, eu-LISA analysed 57 documents, of which 51 were fully disclosed, and 630 pages, of which 604 were fully released.





One of the requests to access documents referred to the decision of the Executive Director to amend the composition of the selection committee for one recruitment procedure. After assessing this request in the light of the principles and conditions defined by Regulation (EC) No 1049/2001, the Agency refused to grant access to the requested documents

since the decision-making process was still ongoing (recruitment process). As a result, the Agency refused to grant access to two documents, comprising four pages. The applicant did not lodge a confirmatory application.

Another request related to the presentation given by eu-LISA to the Council Working Party DAPIX on Interoperability between EU Information systems on 17 April 2018. Initially, the Agency decided to grant partial access to the requested document because it considered that full disclosure would undermine the protection of public security on the grounds of the exception foreseen by Article 4(1)(a) of Regulation (EC) No 1049/2001, and in light of the fact that the decision-making process on this subject was still ongoing, in accordance with Article 4(3) of the same Regulation. However, after receiving a confirmatory application, the Agency decided to grant full access to the requested document after consulting the relevant third parties.

The partial redaction of documents by eu-LISA was based on the exceptions specified in Article 4 of Regulation (EC) No 1049/2001, in particular on the protection of privacy and the integrity of the individual (in accordance with EU legislation regarding the protection of personal data), <sup>65</sup> protection of the public interest as regards public security, and protection of the Agency's decision-making process.

## Other activities related to access to documents performed in 2019

Since the beginning of 2019, the Legal Sector has been striving to guarantee full compliance with the legal requirements and to improve the practice of handling requests for access to documents.

In May 2019, the Legal Sector created a functional mailbox for public access to documents, namely PAD@EULISA.EUROPA.EU.

Furthermore, following a dialogue between the Legal Sector and an interested party, on 8 July 2019, the Agency added a section on public access to documents to its website, with all the necessary information about applicants' rights, in line with the legal requirements and practice of other EU Agencies (such as Frontex and FRA). This section can be accessed through the following link: <a href="https://www.eulisa.europa.eu/About-Us/access-to-documents">https://www.eulisa.europa.eu/About-Us/access-to-documents</a>.

In addition, during 2019, after discussion with the interested party, the Legal Sector took the initiative to create a public register of documents, in compliance with the provisions of eu-LISA's establishing regulation and Regulation (EC) No 1049/2001. In February 2020, the register of documents was finally published under the following link: <a href="https://www.eulisa.europa.eu/About-Us/access-to-documents/public-register">https://www.eulisa.europa.eu/About-Us/access-to-documents/public-register</a>. This register of documents displays all eu-LISA's publicly available documents and is regularly updated.

Since the end of 2019, the Legal Sector has been preparing a new Management Board Decision on the practical arrangements regarding public access to the documents held by the Agency. This Management Board Decision foresees the Legal Sector having a greater role in the coordination of requests for public access to documents as well as the creation of the role of 'contact persons' for access to documents within the Agency.

Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, pp. 39-98).